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General Article

COMMON SALT AND SOME OTHER AGENTS—THEIR USES IN CERTAIN CONDITIONS*

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Foreword.—The presentation of this paper represents an attempt to liquidate the debt I owe to the profession to which I have the honour to belong, and a thankoffering for a life full of interest and abounding in delightful friendships formed during the years. Whatever measure of success may have been mine, it is certain that in any other walk of life I should have been nothing other than a mere cipher, hence my gratitude for the lot which has fallen to me.

For much help and encouragement from my colleagues, I am grateful and in return I have tried to reciprocate, though it is admitted that there are occasions when it is with some feeling of annoyance that I receive a request for information which had been published 15–18 years previously, the reply to which entails much writing.

Naturally there are some who have influenced me more than others, and I take this opportunity of acknowledging my indebtedness to them without in any way disparaging the work of others. Each and all of us have our sphere of usefulness. The first is Mr. Imrie, for early training, much inspiration and a rare friendship, personal and professional, of nearly 38 years' duration. Capt. Pillers, whose premature death was a grievous loss to our profession, is another ; a man jealous for his profession, its prestige and scientific standing, and rightly so. He built his own monument during his lifetime and it stands in veterinary literature for all time. To me he was the embodiment of kindness and encouragement and I shall remember him with gratitude so long as life itself is vouchsafed to me. Judged by the standard of the greatest good to the greatest number these two have, in my opinion—that of a country practitioner—contributed the two most valuable papers of recent years, *viz.*, "Traumatic Indigestion of Cattle"[1] and "The Larvae of *Strongylus vulgaris* as a probable cause of Colic in Horses".[2]

*Paper presented at the Lincolnshire and District Division, N.V.M.A., meeting at Peterborough on June 11th, 1936.

It is of melancholy interest to us that Pillers' paper was the last he ever gave before a divisional meeting. Since the publication of Imrie's paper in 1927 I have recognised the condition and restored in perfect health to their owners over 50 cows per annum, and I know others who have had similar experiences. What a harvest! As for Pillers, the subject of his paper has been an obsession with me ever since October, 1934. Consequently my usefulness has been considerably enhanced by the information made available by these two and my clients have received more benefits than ever before. Major Dalling, too, has stimulated me greatly to further effort and has given me valuable assistance, sparing himself not at all that he might help. For much inspiration also I am grateful to Sir Almroth Wright and Sir Leonard Rogers, whose work on common salt has proved invaluable to me, probably more than I realise. Also to my assistant, Mr. R. N. Clunie, must be given a meed of praise for his enthusiastic co-operation—he has revelled in the problems we have met.

Finally, I wish it to be understood that it is as a clinician only that I have written this paper.

The Use of Common Salt in Veterinary Practice

Since 1917 the writer has made use of common salt as a therapeutic agent, and within recent years its application to some of the everyday cases met with in practice has been investigated with gratifying results. He has vivid memories of the occasion, many years ago, when he consulted the available literature on the subject and found that, according to the experiences quoted, all his patients—because of the large doses used—should have been dead. The explanation was, of course, that the salt was given in highly diluted form.

Strongylosis in the Horse

This is a somewhat difficult subject to discuss, but an effort will be made to place before the meeting the experiences gained and the conclusions arrived at.

Owing to the large numbers of verminous thrombi in the ileo-caecal-colic artery found during the last few months of 1934, a very experienced knackerman was asked to inspect carefully all carcases of horses dealt with in 1935 and to supply material from affected animals. The number examined during the year was 100 and in 83 thrombi containing the larvae of *S. vulgaris* were found. Of these, 44 had been destroyed because of age and debility ; the remainder died from other causes

—disease, etc., and a few from injuries. Thrombosis was found in all cases of impacted colon and impacted caecum with rupture, but every animal with thrombosis was not debilitated, 23 being reported in fair condition and two fat. In some cases the thrombi had become fibrosed. It would appear, therefore, that there are very few horses in this district free from such thrombi, and that because of natural anastomosis of arteries supplying the bowel tract and the formation of collateral circulation, many affected animals apparently suffer no inconvenience.

Debility in farm horses has been very prevalent during the last three years (years of short grass). As a result of previous experience of the treatment of debilitated animals the suggestion was made to the owners that all their horses should be treated. During the winter 1934-5 salt solution was administered to 300 horses with gratifying results in the majority of cases, and during last winter 500 were similarly successfully dealt with. The good results were soon apparent—vastly improved bodily condition and working ability and freedom from colics. It is considered that strongylosis is largely responsible for the debility and the custom in these parts of keeping a minimum acreage for horse grazing has much to do with the heavy parasitic infestations. Horses in larger fields and the local hunt horses with a large park to run in do not lose weight to anything like the same extent. In the park referred to deer, cattle and sheep are also grazed—these ruminants are believed to destroy equine larvae which they may swallow.

The administration of salt solution is often followed by the evacuation of a number of parasites, especially ascarides, and so with a view to ascertaining the anthelmintic value of the treatment, two horses—weight-carrying hunters—were both treated six times during the past hunting season ; an egg count was made immediately before and one week after each treatment. The figures are interesting but not easily explained. It is interesting that neither horse (same ownership for five years) has ever finished a season in better condition and both have evoked great interest in the hunting field.

*Egg Count per gramme**

	Before treatment		Negative
Bay horse	375,000	(*a*) 187,500	56,000, 37,000, 56,000, 37,000.
		(*b*) 225,000	
Chestnut mare	675,000	(*a*) 150,000	18,000, 37,000, 102,000, 75,000, 18,000.
		(*b*) 150,000	

Owing to the low count (*a*) obtained after the first treatment, a second count was taken with the results shown (*b*).

*Carried out by Major T. Dalling, Beckenham.

More recently, as the result of Miller's paper on Fibrinogen Meal,[3] a feeding experiment was made to find out whether there is any element in dried sheep blood antagonistic to the parasites of the horse. The horses received 4 ozs. of the preparation with brown sugar daily for three days and 8 ozs. per day for the remainder of the period, three weeks, when they were turned out to grass.

Miller[4] has stated that the amount given was excessive, but it was readily taken and no harm accrued ; the improvement in a very short time was remarkable—muscular development, shining skins and the summer coat six weeks ahead of time.

Egg counts were made before treatment and at intervals of a week for three weeks.

*Egg Count per gramme**

Bay horse : 18,000, negative, 18,000, 37,000.

Chestnut mare : negative, negative, negative, negative.

What has happened to the chestnut mare ? It is admitted that egg counts show many vagaries, but even then there must be some other reason. Is it possible so to treat a horse that it is able to destroy its own internal parasites ?

It may be stated here that on no occasion during the winter have parasites been detected in the faeces of the bay horse (writer's own property).

Intravenous Injection of 5 per cent. Salt and 5 per cent. Sodium Citrate Solution

One step leads to another and so with a view to discovering whether the above would destroy the larvae of *S. vulgaris* and dissolve the thrombus, two pints of water containing 2 ozs. each of salt and sodium citrate were administered intravenously to several horses, particularly cases of caecal impaction and chronic constipation. A surprise was in store, for it was found that remarkable results were obtained in cases of caecal impaction which would not yield to any known form of treatment (1½ lbs. salt in eight gallons of water administered by stomach tube will effect a cure in most cases if treatment is begun early). The " caecum " horse is as follows :—may or may not have had colic which is often accompanied by slight diarrhoea in the early stages ; appetite extremely fickle, only a mouthful or two at a time and the same with water ; a characteristic raising of the head with slight stretching ; abdomen tucked up ; from general appearances not obviously ill but not quite right ; pulse quick and weak, 70-80. When seen 24 hours later—it may come sooner —the transformation ! Patient bright and cheerful ; pulse normal, full and bounding ; appetite for both food and water voracious ; peristalsis brisk, piles and piles of faeces all over the floor of the loose box. These results now

appear to render untenable the view held by some that the nerve plexus is seriously affected by the fibrosis of the arterial wall in the vicinity of the aneurism.

Needle (Danish pattern) used with Sir Stewart Stockman Anti-abortion syringe improved by Arnold Spicer for intravenous injection. Owing to its calibre the fluid readily gravitates into the vein.

Towards the end of the injection the following phenomena are often shown, to a more or less marked degree, but more so in thin horses :—yawning, staggering and even falling, a pronounced jugular pulse and other signs of an " overloaded " heart. The obvious thing to do is to slow down the rate of flow of the fluid into the vein. On being released the patient at once makes for water and greedily swallows four to six gallons, even if he has taken practically none for several days previously.

Since the adoption of this treatment, six months ago, 25-30 horses have been saved, the majority of which would have died if treated by any other method. In one case, ill for a fortnight before being seen, the caecum was found so impacted that practically no digital impression could be made on the affected organ, and yet after three days' futile treatment by stomach tube one intravenous injection cleared the whole situation in a miraculous manner and the patient made a perfect recovery.

Thrombosis—Dissolution

In addition to restoring the alimentary tract to normal, *i.e.* nervous and muscular action and glandular secretion, sufficient evidence obtained from clinical and *post-mortem* observations has now been forthcoming to warrant the belief that the thrombus can be dissolved, though the parasites appear to remain unaffected despite large doses of common salt per stomach tube or the intravenous medication just described. In two horses, treated intravenously three times at intervals of five days, the arteries were found thickened and enlarged but devoid of thrombi—the intima too, showed signs of healing—though containing numbers of larvae. It may be inadvisable to attempt to destroy them, as the Germans are reported to be doing, by the intravenous injection of antim. pot. tart. ; better perhaps to allow them to escape, for on two occasions dead and calcified larvae have been found. It is quite probable that many more are in the course of migration.

No evidence of embolism or any other untoward result following medication by the intravenous route has been observed and, further, it appears to be immaterial whether the solution is warm or cold.

The term " *shy feeder* " is one often applied to the horse which shows little inclination to consume his corn ration, preferring hay. One such animal did not answer in any way to the ordinary tube treatment, or to the intravenous injection of sod. cit. by itself. The response to salt and sod. cit. in combination intravenously was extremely gratifying, normal appetite being quickly regained, to be followed by improved condition. The general appearance of the patient, poor condition and rusty coat, pointed to parasitism with thrombosis—large numbers of worm eggs were found in the faeces by the sugar flotation method.

Parasitism of the Young Horse

Heavy parasitic infestation in young animals, six months to three years, causes unthriftiness and other forms of illness. Such cases present a very different problem as shown in life and on *post-mortem*. Seven colts on one farm were treated ; six recovered but one died. *Post-mortem* examination of this animal revealed the following parasites in large numbers :—bots, ascarides, tapeworms, several varieties of strongyles and oxyurides in the alimentary canal ; large numbers of larvae of *S. edentatus* and *S. equinus* in the abdominal cavity, and the larvae of *S. vulgaris* in an enormous thrombus. In addition to the depredations of the blood suckers, enormous quantities of pathogenic bacteria must be taken by the migrating larvae through the bowel wall into the peritoneal cavity, and ill effects must ensue from the abscess formations in the bowel wall itself. Enormously enlarged lymphatic glands point to serious infection, and one wonders how the equine species has managed to survive at all.

What is the best worm drench for a horse ? In the opinion of the writer, this question, so frequently asked, is a futile one. To be of real service, anthelmintics must be given repeatedly over a considerable period.

So far, the best treatment, in the writer's opinion, appears to be the administration of salt solution by tube—the intravenous use of salt and sod. cit. is also of great assistance—rich, nourishing food, cod-liver oil, minerals and fibrinogen meal ; the writer's experience of the blood meal is still slight but it shows great promise. To the above there are no contra-indications or objections of any kind and the response is rapid except in the worst cases, as is to be expected ; improvement may be observed in even 24 hours after salt administration.

Before leaving the subject of parasitic diseases, an interesting case of hemiplegia may be cited. The patient, an eight-year-old gelding, was a typical clinical case of parasitic infestation and showed partial paralysis in the near fore and

near hind limbs. After due consideration it appeared feasible that the trouble might be due to a thrombus caused by *S. vulgaris* larvae. Two intravenous injections have apparently effected a cure—in any case the patient has recovered the normal use of his limbs *after* treatment.

A plethora of cases of partial paralysis in young horses usually turns up in this district just after a thunderstorm and the owners are always positive that nothing was wrong previously ! Are these after all cases of thrombosis ? Further investigation appears to be indicated, as *post-mortem* examination of a valuable thoroughbred filly revealed an enormous thrombus—there was serious inco-ordination of movement for months before death.

Retention of Placenta and Metritis in the Mare

Gratifying results in these cases have now been obtained for years, but special note has been made of those which occurred in 1935 and to date, 21 in all. There has not been a single death or a case of parturient laminitis. When retained, the placenta is removed in the usual manner and then the uterus is thoroughly douched with hot salt solution, ½ lb. to four gallons, so hot that it is almost more than the hand can bear ; the fluid is then syphoned off. The douching is repeated until the returning solution is as clear as when first put in. While treatment is being carried out uterine contraction is quite apparent to the hand and doubtless, also, an enormous serous discharge is stimulated. No antiseptic of any kind is used. Caulton-Reeks[5] has used this treatment, with the addition of carbolic acid, for years after difficult parturition.

On completion of local treatment, 1 lb. common salt in four gallons of water is administered by stomach tube.

The following are two of the best cases :—

1. The mare showed signs of foaling a week previously but advice was not sought until labour pains were in full force. On examination a dead emphysematous foetus was found with all four legs presented. With the aid of the embryotome both fore legs, the head and one hind leg were removed, but it was not until the foetal abdomen had been incised and its contents removed that it was found possible to get the remainder of the foetus away by traction on the remaining hind limb. Uninterrupted progress to full recovery followed. The successful results were due to *vis medicatrix naturae*, the embryotome and the after-treatment—hot salt irrigation and salt solution internally.

2. Mare foaled 31 hours, placenta retained, uterus full of dark chocolate-coloured fluid, temperature 105° F. The uterus was so irritable that when treatment was commenced violent expulsive efforts were so great that prolapse occurred, reposition being at once effected. The following day temperature was normal and the condition of the mare excellent—no further treatment required.

Chronic Metritis in the Mare

Two such cases have recently been seen, with gallons of purulent material in the uterus, and successfully treated by irrigation with hot salt solution. One mare was treated three times and the other only twice.

Wound Treatment.

Since 1917 all wounds have been treated by the author by the internal administration of salt solution with the exception of pig bites which are extremely dangerous and liable to necrosis—best results in these have been obtained by the liberal use of B.I.P.P., which should be applied with the least possible delay. Profuse exosmosis through the wounds following salt solution per stomach tube is induced in three to four hours, there is a gratifying anodyne effect, and owing to decalcification the ugliest gashes heal up with only a trace of a scar. In April, 1935, a client administered to one of his horses a quantity of crude carbolic in mistake for linseed oil. The condition was serious ; the skin of the face was so badly excoriated that it peeled off, the lips, tongue and pharynx were badly swollen and passage of the tube was extremely painful. There were grave fears of oesophageal stricture after the antidote, sodium sulphate, had saved the patient in the first instance, but owing to the action of the salt given no such untoward sequel has yet occurred.

Choking Accidents Accompanying Drenching

A series of these was published in the *Veterinary Journal*, 1921. Recovery took place in every instance and since then only one case of septic pneumonia has been seen ; this was due to choking with sugar beet pulp. These choking cases are quite common—distressed breathing, coughing, a rise in temperature often to 105° F., disinclination to move and churning sounds in the trachea and bronchi. If seen soon after the accident and salt solution per tube given, the animal will be found perfectly normal the following day in nearly every instance. One patient ran a temperature, 104° F., for several days, but manganese butyrate, intramuscularly, had the desired effect. To explain the happy results is beyond the writer.

Retained Meconium in the Foal

The sleepy, non-sucking, newly-born foal has for years been an enigma to the author, but fortunately it was discovered last year that he is the victim of retained meconium. Williams[6] recommends a salt enema, 1 oz. to 1 gallon lukewarm water, and this has now proved itself

to be of extraordinary value — gravitation appears to be the safest method of administration, increased retention, too, being obtained. It is extraordinary how much meconium can be evacuated. In one case there was 3 feet of it covered by mucus and resembling an enormous sausage, and in a recent instance a whole hour was spent evacuating an immense quantity. In many instances the whole gallon of fluid is retained for a time and then evacuated with the meconium without effort.

The following is then given per stomach tube :—dianimol ʒii, soda bicarb. ʒi, aqua ad. ʒviii, paraffin liq. ʒviii. The results are excellent and the foal soon shows a desire for milk.

In some instances large quantities of mucus are found instead of meconium and the same treatment is adopted.

It was with great interest that it was found that arthritis often follows retention of meconium, diarrhoea or the mucus condition in a very few days, and quite a number now have recovered without abscess formation.

Experience appears to point to the alimentary canal as a port of entry for pathogenic organisms, especially in the very young foal. By the adoption of the above treatment it was found possible to save a foal, the offspring of a mare which had lost her previous three foals from joint evil. This foal afterwards developed arthritis in both hocks, but the swellings were gradually absorbed. Injections of manganese and salt solution per tube were given during the later stages of treatment, apparently with great benefit.

Although the writer is of opinion that derangement of the alimentary canal may have dire consequences, infection through the navel is not ruled out. It is an interesting fact, however, that for years no case of joint evil has followed vigorous curetting in cases of pervious urachus or purulent navel discharge containing necrotic material; the hyperaemia induced appears to form an effective barrier to the possible entrance of pathogenic bacteria.

General Remarks.

It is difficult to explain why salt should prove so valuable in such a variety of diseased conditions, some of them diametrically opposed, *e.g.*, constipation and diarrhoea. It would appear that its therapeutic action is entirely in accordance with nature's own efforts to bring about restoration to normal. In short, there is nothing like common salt.

Impaction of the Terminal Portion of the Ileum of the Horse

This condition has been ably presented by Hudson[7] and now a further valuable contribution has been made by Harvey.[8]

Looking back over a period of years, one must be in full agreement with Harvey that the condition has really been overlooked. It has for long been recognised that ruptured stomach is often caused by anti-peristalsis, due to what? —In all probability, this self-same condition. Experiences to be mentioned later confirm this view.

During the last five weeks five such cases have been seen but, though suspected, positive diagnosis could not be made owing to inability to palpate the actual impaction. Now that the picture has been so ably drawn by Hudson and Harvey this does not now appear to be really necessary; the other symptoms enumerated are now sufficient for diagnostic purposes.

Two of the five animals died before they could be seen a second time; in one instance there was ruptured stomach but no impacted ileum (this may have been overcome towards the end, but too late), while in the other impaction was found but no rupture.

The onset of the condition is somewhat insidious as the state of the animal does not cause alarm, the pulse is probably only 45-50 and no discomfort is shown for some time after the administration of salt solution—author's routine treatment. In a few hours, however, the situation is considerably changed for the worse as shown by the pulse, 70-80, though not necessarily by the degree of discomfort shown. There is considerable tympany, particularly on the right side, and one suspects twist.

The writer has for long attached a great deal of prognostic value to his ability or inability, as the case may be, to hear the sound of the fluid passing along the small bowel—and this now appears to be of increased importance.

In some instances recovery with salt treatment does take place, though the symptoms are greatly aggravated for a time, but in others the condition is much more serious. There may or may not be attempts at vomition—one horse kept the sitting up posture for long periods and ultimately recovered—but in any case insertion of the tube into the stomach is indicated and it is surprising how much food, fluid and gas can be removed in a very short time with considerable relief to the patient.

Now that the intravenous injection of salt and sod. cit. solution has assumed such importance in this practice, this is now carried out along with retention of the tube in the stomach, kept in position by being securely fastened to the head stall, the end being carried over the poll. This is the treatment which had proved successful in the three recovered animals already referred to—*the tube is the safety valve.*

Instances, some of them years ago, are recalled when it was found necessary to keep the tube in the stomach for prolonged periods and recovery took place without other treatment.

Eructations of gas and gushes of chyme took place for hours—36, 18, 17, 9—all night in two cases and several others. The 36-hour case holds the record, vomition through the tube being practically continuous the whole time ; recovery followed.

The administration of salt solution in large volume now appears to be absolutely contra-indicated with one possible exception. It is easy to understand that for each 4 gallons, 2½ per cent. solution, there must be drawn into the bowel sufficient fluid to reduce the solution to 1 per cent. before absorption takes place ; note the quantity found by Harvey and realise how much the condition must be aggravated. The only thing in its favour may be that the removal of large amounts of toxic material may be facilitated by the increased quantity of fluid removed through the tube. On the other hand, intravenous medication will have the opposite effect, drawing fluid to the blood vessels and thus assisting to relieve the situation ; excretion by the kidneys is stimulated and normal peristalsis induced. It only remains to add that on one's first visit insertion of the tube into the stomach invariably gives negative results, which is somewhat misleading in these cases.

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[3]Miller, W. C. (1936.) *Vet. Rec.* 16 (N.S.). 11. p. 311.
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[5]Caulton-Reeks. Personal communication.
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[7]Hudson, R. (1936.) *Vet. J.* 92. 2. p. 50.
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Discussion

Major T. Dalling (Beckenham, Kent), who opened the discussion, said: I feel I am in rather a false position to-day, attempting to open the discussion on a subject such as Mr. Lang has presented in his paper. Because of my respect for Mr. Lang and his work I accepted his invitation to come here to-day, but I fully realise that there are many present who are in a much better position to deal with the subject.

We have all known for a long time of Mr. Lang's use of the stomach tube in the "direct" application of drugs. We also have known of the use he has made of salt in the treatment of a variety of conditions. He has now gone a step further and introduces salt (or rather a mixture of sodium chloride and sodium citrate), directly into the blood-stream, and in his paper records his observations on this method of medication in the treatment of several disease processes.

It may appear strange that the two methods of administration—directly into the alimentary canal and into the blood-stream—should be followed by similar results on disorders of the intestine, but the results of Mr. Lang's observations indicate strongly that the end result is the same. One wonders what are the mechanisms of the two methods and I would ask you to consider whether there is anything specific in the action of the salts used, partly or wholly. We can readily understand the direct action of salt, etc., on the mucous membrane of the intestine and the effects following its application by the stomach tube. It is more difficult to appreciate the effect on the intestinal mucous membrane of the same substances introduced into the blood-stream. We know from experience that materials introduced into the blood-stream may find their way in a surprisingly short period of time into the intestinal mucous membrane and into the intestine itself. In our study of lamb dysentery the most certain method of setting up the disease was to introduce a small quantity of a culture of the causal organism into the blood-stream. The typical lesions were soon found in the intestinal mucous membrane and the causal organism could with ease be isolated from the intestine. Further, the intravenous injection of material rich in protein, especially in concentrated form, is followed almost at once by symptoms of intestinal disturbance (evacuation of semi-solid or liquid faeces, etc.). It may be that much of the results Mr. Lang records is closely bound up with the concentration of the salts injected and I suggest that you consider this aspect in your discussion. I am not sure whether Mr. Lang has used salts other than sod. chlor. and sod. citrate and if not I would suggest that he tries some other simple salts in the same concentration, and further that he varies the concentration and the salts he uses while keeping the actual amount of the salt the same. I feel that if he would try these suggestions in the treatment of some of the intestinal troubles he mentions and observe the results it would help considerably in clearing up the mechanism of the treatment he adopts.

You can readily realise that I cannot discuss Mr. Lang's paper from the clinical aspect as the experience I have is so very meagre compared with that of the veterinary practitioners present. I feel, however, that I would like to make a few remarks on some of the points in the paper.

Mr. Lang discussed parasitic infestation in horses and specially infestation with *S. vulgaris* with the resultant formation of a thrombus in the anterior mesenteric artery. Doubtless, horses harbour many intestinal parasites but one wonders very much how much damage they really do to the horse. In some animals, and possibly also in the horse, the presence of parasites in the intestine does not appear to be of very much importance, and I would go further and say that their importance has been much exaggerated. A time may come when, probably

from some other entirely different cause, the parasites become very numerous and give rise to trouble. I think also, that although egg counts are some indication of the degree of infestation, too much reliance should not be placed on the count as an indication of damage caused by worms. Mr. Lang, when he paid us a visit a few weeks ago, showed me where to look for the anterior mesenteric artery in the horse. I do not mean that I did not know, but its small size in the normal animal makes it difficult to locate. Since Mr. Lang's visit we have searched for evidence of thrombi in this artery but have failed to find any. In this respect, therefore, the "town" horses into which group most of our horses come, differ very much from those found in Mr. Lang's district. (He found 83 cases in 100 horses last season.) It is obvious, of course, from Mr. Lang's remarks that such a thrombus does not always cause inconvenience to the affected subject. Mr. Lang has very kindly shown me many specimens of infested thrombi, both in untreated and treated horses, and in the treated cases there was undoubted evidence of healing, and for that reason one feels that there was in all probability some benefit from the treatment applied. I was also struck with the immense amount of collateral circulation which had developed.

Mr. Lang refers to the beneficial use of irrigation with salt solution in cases of retention of the placenta in the mare. I have used Mr. Lang's technique for such cases and can corroborate his findings. Only this spring a mare gave birth prematurely to a foal and part of the placenta was retained. Within 48 hours the mare had a temperature of 105°F., was "heaving" hard and appeared really ill. Irrigation with salt solution enabled me to remove the portion of retained placenta and one more treatment with salt effected a complete cure. Has Mr. Lang tried this treatment in the cow?

The treatment of wounds with local applications of salt is well known, but Mr. Lang records good result when the salt is introduced intravenously. The oozing of fluid from the injured area would appear to exert a beneficial effect in healing and the prevention of infection by pus-forming organisms.

Perhaps the part of the paper which impressed me most was Mr. Lang's treatment for so-called "joint-ill" in the very young foal. The term "joint-ill" is applied to a variety of conditions affecting foals including the condition in which the very young animal appears sickly and weak from its birth or soon after. You may remember that the late Professor Gaiger and I published a paper on the result of examination of a series of such foals and described the bacteriological findings. *B. coli* appeared to be the common invader and we concluded that that was the organism responsible for the trouble. We felt also that probably these organisms entered the alimentary canal of the foal soon after birth *per os* and that the mare was the source of infection. It has been suggested that beneficial results might follow the use of vaccine made from these special *B. coli* strains on the mare while pregnant so that the foal could acquire a passive immunity soon after birth *via* the colostrum of its mother. Personally I have not seen good results follow this treatment. Mr. Lang's observations are, in my opinion, of the utmost importance. There seems little doubt that infection from the intestine occurs and now that Mr. Lang has observed that retained meconium is associated with such cases the treatment and prevention are easy. I do feel that this observation is of great value.

I am sorry I cannot say anything on obstruction of the terminal portion of the ileum but I see here Mr. Hudson, who knows the condition well.

One more point—Mr. Lang describes some symptoms of distress following his intravenous injection. I would suggest that in extreme cases the symptoms may be relieved by bleeding the subject and so relieving the heart temporarily.

The paper has given me much food for thought, and I feel that we owe a lot to Mr. Lang for getting this material together for our discussion. It is essentially a clinical paper giving the result of observations without any attempt to say why certain things take place. The paper is impressive because of the accurate observations it contains—observations made by one who, we all recognise, knows how to observe.

An animated and interesting general discussion followed.

Mr. F. L. Gooch after expressing thanks to Mr. Lang for his excellent paper, referred to the question of horses affected with thrombosis and quoted *post-mortem* statistics in the paper, which in his opinion proved that though many horses were affected with parasites in the mesenteric artery—which perhaps sometimes caused unthriftiness—very few cases proved fatal. He instanced the case of a brewery horse many years ago in Stamford, when it would have been impossible for anyone to have found the artery, as it had a 48-lb. tumour attached, and the horse had shown no ill effects. He also mentioned a miller's horse that had an enormous swelling on the thigh of the off hind leg. Partial paralysis of the hind quarters followed. A second opinion was called in, and a tremendous thickening of the iliac artery found on the same side as the affection. He discovered a small vessel by the side of this artery, which both veterinary surgeons said would take up the work, and it did.

Mr. Lang, continued Mr. Gooch, had said that the alimentary canal was the most likely port of entry for pathological organisms, though he did not forget the navel. But what about a foal that was a month old and had been perfectly healthy, and then developed a swelling? There was no doubt in his opinion that in this case the infection was through the navel. Ruptured stomach he had found prevalent in connection with certain types of work done by horses, notably timber carters' horses. It was due to heavy work on an overloaded stomach. It was

common in cases of ruptured stomach for a horse to have no rise of temperature and very little pain, and yet be found dead the following morning and he had not found the animal tympanitic. It was difficult to know how to account for this.

Mr. R. Hudson observed that the essayist had not mentioned the definite proportion of salt, in solution, he used with the stomach tube, which he thought to be an important omission. With regard to the treatment of stomach cases with the tube, he would like to know how often this large quantity of solution was administered. He wondered whether the sodium citrate used as as adjunct to the sodium chloride had any real importance. He had used a concentrated solution of 3 oz. of sodium chloride and 24 oz. of water and had not noticed any coagulation in the jugular when injected intravenously.

Mr. Hudson referred to an interesting case he had encountered a short time ago of the action of the solution in paralysis. A horse was down and unable to get up; it was pulled up with slings and fell down again but after treatment it fell once more. He then gave it a dose of salt in the above proportions and in a few hours the animal was better and rose without assistance.

With regard to the use of salt in cases of wounds, Mr. Lang had said that it threw out fluids into the tissue, but did they want fluids in the tissue? Even if they were not offensive they were a nuisance.

Mr. Porter-Smith said he thought it was a serious thing to inject very much fluid into a mare after she had foaled. He had never seen any tympany in connection with ruptured stomach, which he agreed was chiefly due to eating before drawing a heavy load.

Mr. G. Eaton asked for information as to the technique of the intravenous injection.

Mr. Walpole gave it as his opinion that the administration of salt to cows in parturition cases was very useful. He also stressed the value of iodine ointment in uterine cases. Thirty per cent. of foals that died were sleepy foals. The cause was a yellow fibrinous clot on the cavities of the heart, formed either before or after birth. The heart was not pumping the blood supply to it, and the foal was an idiot.

Contributions to the discussion were also made by Mr. Poles and Major Foster.

Lieut.-Colonel H. Greenfield said it had been a very real pleasure to him to come and listen to the paper of his old friend Mr. Lang. He felt that when Mr. Lang had introduced the stomach pump, he had made an advance that was almost historic. In the Army now the stomach pump was used almost universally for giving drugs. It was also being used for almost all horses in parasitic treatment. Even those who were least enthusiastic about it had to admit that it did produce efficiency. One advantage of the treatment was the range of possibilities of method. He mentioned a case of a horse that was constantly coughing and was in an advanced stage of "wind sucking." He had given it an injection of saline solution that had proved very efficacious. There had been a great reduction in cases of colic in the Army since the introduction of the stomach pump. Salt in itself was a valuable treatment in colic.

The Reply

Mr. Lang, summing up, said he was very glad they had had such an excellent discussion. The use of sodium citrate, he said, had been with a view to assisting dissolution of the thrombus and might not be necessary at all. The only other drug he had used had been quinine hydrobromide. As regards the proportions of the solution: for hunters, he had used three-quarters of a pound of salt in four gallons of water; for a cart horse up to one-and-a-quarter pounds. He had not liked to repeat the dose under twelve hours—it was seldom necessary. With regard to fluid in wounds, it did not accumulate in the wound but was continually driven from it. The method of making the intravenous injection was to raise the head of the animal so that the neck muscles were taut, when the agent would go in quite easily. He added that he had a very small tube, for use as a stomach tube, that could be employed on a day-old foal. Mr. Lang concluded by reading a letter from Mr. William J. Rice, of Montrose, expressing interest in his paper.

Clinical Communications

A PECULIAR RESULT OF THE USE OF ACETYLCHOLINE IN A CASE OF COLIC

E. G. CONISBEE, M.R.C.V.S.
Axminster

The subject of this note was a Shire mare, six or seven years of age, and she was a shiverer, the symptom of that being exhibited normally by the upper lip, but while she was colicked it was shown with increasing severity and extent until the case was at its worst, when it was shown by the muscles of the shoulders and chest wall. She was attended in colic on March 27th, when she recovered in about 24 hours or less. On the 26th of the next month the owner sent in late in the evening asking for a colic drench. He was given two containing antispasmodics. At about 3.30 the following day, he asked for assistance. She was then in considerable pain; the bowels were inactive but the pulse and mucous membranes indicated no reason for alarm. She was given a purgative draught in oil with sedatives and antispasmodics, and seen about four hours later, there was little change in her condition. An injection of 5 c.c. acetylcholine was administered immediately after a stimulant draught. Soon there was some champing of the jaws and salivation and a wave of peristalsis was heard, but there was little apparent distress to the mare. The writer had moved to the other end of the big loose box, and standing in front of and at right angles to the mare's head while replacing the syringe, saw, out of the tail of his eye, the mare's head elevated, and a swaying motion from side to side; then the mare went down on her broadside as if shot. Sudden alarm passed to instant relief as the mare proceeded first to assume the normal recumbent attitude on her sternum and then to regain her legs and to appear neither distressed nor frightened, nor any the worse for the sudden and violent exhibition. There was some flatus and a small quantity of faeces evacuated as the mare went down. Four hours later there was

not much progress, pain being still fairly violent at frequent intervals, and about three gallons of saline solution was given *via* the stomach tube. That was repeated about twelve hours later, little action having taken place and pain still being exhibited. She was seen last on the 29th, when she was recovering and taking food.

The writer would like to add an expression of his indebtedness to Mr. Harvey of St. Columb, who brought this agent to the notice of the profession through *The Veterinary Record*. That it may be of great service at times there is no doubt, but not every case in which an absence of peristalsis has been the main symptom has recovered after its use. Possibly more requires to be known of its posology and perhaps, as Harvey has suggested, it might with advantage be given simultaneously with eserine.

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CONGENITAL TUMOUR IN A FOAL

E. G. CONISBEE, M.R.C.V.S.,
AXMINSTER

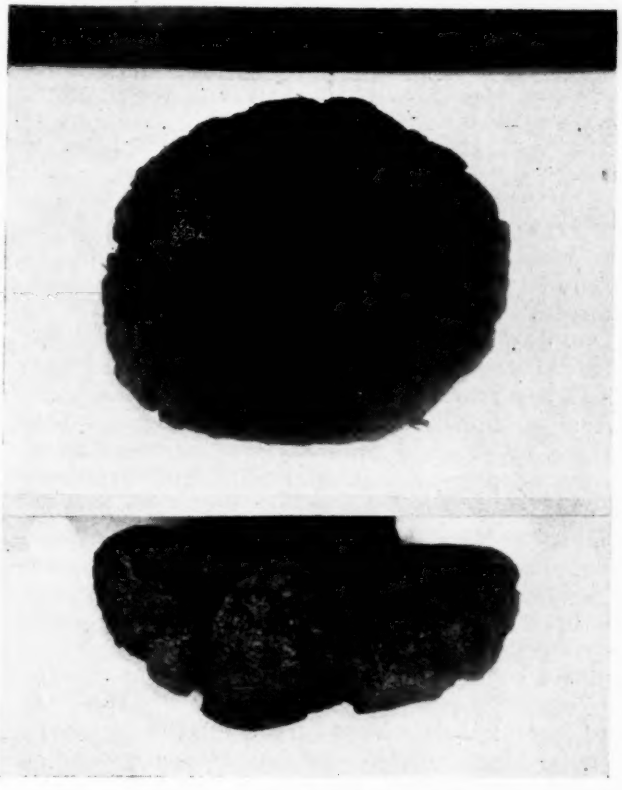
On the morning of May 1st attendance was sought on a draught mare that had foaled during the previous night, but that had failed to expel the foetal membranes. Her grey filly foal, otherwise apparently normal, excited interest by reason of its having a large papillomatous growth on the forehead; at the first quick glance, from the very central position of the tumour, the animal conveyed the impression of having been decorated with a rosette by human agency. On inspection it was found to be growing from the point at which one looks for a star in the horse, where there is normally a twist in the lie of the hair. It was a cauliflower-shaped growth, its outline being as circular as such formation would allow; the anterior surface was convex and the posterior surface flat, with a circular depression in its centre to which the skin was attached. The growth was of a greyish black colour, about the size of the palm of the hand, and by its weight, perhaps half a pound, it drew for itself a sort of short stalk of the skin. Failing other means to hand, a piece of silk was put round it tightly, with the object of affecting removal. That apparently gave way and the owner tied its base with string. It was later reported to be getting bigger and was removed on May 15th with scissors, under local anaesthesia.

The owner stated that he thought he saw something of the sort come away free with the membranes when the mare foaled last year.

. . . . .

PATHOLOGICAL EXAMINATION OF THE TUMOUR

The size and general appearance are sufficiently illustrated by the accompanying photographs, the lower one showing the free convex surface of the intact tumour and the upper one illustrating the appearance after section through a plane bisecting the remains of the central pedicle. The finely branched stroma of connective tissue is to be seen forming a delicate supporting structure which is enveloped by the epithelium. The mass was very hard and brittle and intensely pigmented. No hairs were present and the numerous crypts were occupied by masses of horny débris.



Histological examination showed the stroma to consist of collagenous connective tissue carrying thin-walled vessels and completely invested by a thin corium containing a few sebaceous glands which appeared not to possess ducts and to contain cystic spaces filled with secretion.

The epithelium was of the type usually found in the epidermis and was thrown into papillae which resembled in size and shape those present in the rumen. There were no hair follicles. The basal cells of the epithelium were filled with granules of melanin and this pigment was also to be found in occasional cells in the underlying corium. The horny layer was very thick and formed masses of concentric laminae between the delicate epithelial arborescences. There was no evidence of any malignant character nor of an inflammatory reaction.

During recent years multiple papillomata occurring in several species of domestic animals, *e.g.*, cattle, horse, dog and rabbit, have been shown to be caused by filtrable viruses. Single

congenital papillomata, however, appear not to belong to this class, as far as is at present known. They have been recorded in foals and calves, but a heavily pigmented one of the size and structure above described would appear to be sufficiently uncommon to merit recording.

A. B. O., E. G. W.

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APPARENT REDUCTION OF THE LUMEN OF THE LOWER BOWEL IN THE HORSE, DUE TO INSUFFICIENT BULK IN THE DIET

E. G. CONISBEE, M.R.C.V.S.,
AXMINSTER

The subject was a thoroughbred gelding, about six years of age; he came under observation in the early days of May. He had arrived on the premises one day, been given exercise next morning, and in the afternoon was hacked for a couple of hours by his new owner, who thought him rather sluggish. On his return to the stable the horse made a small evacuation in the yard, failed to finish the feed given, commenced to take a mash until some salts were added to it, began to appear uncomfortable, and presently started to strain. Assistance was then sought. The horse was then very uncomfortable, straining almost incessantly, and with the anus continually open. His abdomen was very much of the greyhound type in appearance, his bodily condition very light, but the muscle hard; manual exploration of the rectum could only be carried sufficiently far to enable one to appreciate the fact that the bowel manipulated appeared smaller than normal and that there was some colonic impaction.

Further history gleaned then and later was that he had been hunted till early in February and later engaged in about three point-to-points, in each of which he had run creditably, the last being ten days before he came to the fresh stable. It was stated that in his preparation he had been given very little hay, but that he had been allowed to graze for about ten minutes every morning on coming in from exercise. The appearance of the horse, and the size of the bowel, seemed to fit the history, particularly if the "very little hay" was taken as practically none.

He was given an oily purgative with bowel stimulants, the latter continued over the next two days or so. By the next morning there had been an almost negligible action; the straining was still in evidence, though he had been induced to eat a little mash. He was given about three gallons of warm saline solution with a quart of liquid paraffin by stomach tube. By the evening he was appreciably improved and had taken a few small mashes and a little hay; the straining was less in evidence, but still there. He was led out and grazed for about ten minutes in a bare paddock. The next morning there had been more bowel action, but each bolus was small in size. His further treatment was mashes, hay, a little corn, and increasing periods of grazing by the roadside, and turn out as soon as possible. Seen a month later, he had quite a rotund appearance, but had unfortunately gone lame both fore in his very upright pasterns.

Abstracts

[X-Ray Diagnosis of Pulmonary Cancer in the Dog. (Trans. title.) SAILLAD, R. (1935.) *Bull. Acad. vét. France.* **8.** 9 (November, 1935). 484-491. 6 X-ray photographs.]

The authors state that, as a result of studying a large number of X-ray photographs of pulmonary cancer in the dog, they are able to classify the results into four types. The first three of these are diagnostic of primary cancer and the fourth of secondary cancer of the lungs.

The first type is an isolated pathological shadow, generally oval in outline, sharply defined and uniform in density. A dorso-ventral view will show the shadow in either the right or left lung. The differential diagnosis between primary cancer and tuberculous adenitis of the mediastinum is clearly described; reference is made to the shadow caused by foreign bodies in the oesophagus.

The second type is that of several dispersed pathological shadows; these may be ill-defined but it is claimed that an intra-tracheal injection of lipiodol clarifies the position. The differential diagnosis between tuberculosis or sarcoma of the mediastinal glands and this form of pulmonary cancer is described as also is that dealing with tuberculous cavities, cysts in the lung, oesophageal dilatations and diaphragmatic hernia.

The third type is a generalised shadow irregularly dappled throughout the lung. This type may readily be confused with that typical of secondary cancer of the lung.

The fourth type, described as typical of secondary carcinoma of the lung, is a dappled shadow regularly disposed throughout the pulmonary area in the film; it is described as resembling "flakes of snow." The differential diagnosis is described between this type and broncho-pneumonia, tuberculous sclerosis and small tuberculous cavities in the lung.

The paper is illustrated with six good reproductions of X-ray photographs supporting the text. The original paper should be studied by anyone interested in the interpretation of radiographs.

G. F. B.

[**Frequence of Cystinuria in the Dog.** (Trans. title.) Brion, A. (1935.) *Bull. Acad. vét. France.* **8.** 10 (December, 1935). 598-601. 4 X-ray photographs. 7 refs.]

It is claimed in this paper that cystinuria in dogs is not such a rare condition as has been suggested. This statement is based on an examination of the collection of calculi from dogs at the Alfort clinic. Four out of 15 specimens were found to contain crystals of cystine. The details are given of a chemical test for cystine. Three X-ray photographs are printed showing the relative density of an isolated calculus containing cystine compared with isolated calculi not containing cystine. There is a poor reproduction of an X-ray photograph of a dog's abdomen purporting to show a vesical calculus.

At the beginning of the paper there is given a review of the literature on cystinuria.

G. F. B.

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[**Congenital Ectopia and Coloboma of the Crystalline Lens in the Horse.** (Trans. title.) Brion, A. (1935.) *Bull. Acad. vét. France.* 8. 10. 603-607. 2 figs. 4 refs.]

The author describes a rare condition of the eye of the horse. In the course of a detailed examination of the left eye, made under a mydriatic, he noted the presence of a bright crescent situated on the inner side of the pupilla. This crescent was transversed by fine dark lines radiating from the centre to the periphery. To the right of this a portion of the lens was visible.

The author recognised the condition as one of ectopia of the lens, with the axis displaced towards the external side. He remarks that the appearance of the eye agreed in every respect with the description of this condition given by Nicolas. On examining the right eye a similar defect was also found to exist, but here, in addition, the lens was smaller than normal, so that, though displaced, the whole of it was visible.

The dark lines seen in the aphakic crescent represent stretched fibres of the Zonule of Zinn. Neither iris appeared to be injured. On testing over obstacles vision proved to be normal in the left eye but defective in the right.

C. D.

ADDITION TO ATTESTED HERDS

Eight herds of Ayrshire cattle (seven in the county of Ayr and one in Lanark) were added to the register of attested herds under the Tuberculosis (Attested Herds) Scheme during the month of June. These additions bring up the number of attested herds in the county of Ayr to 78 and in the county of Lanark to ten. The total number of attested herds at June 30th was 119, comprising 9,979 animals.

N.V.M.A. Divisional Reports

LINCOLNSHIRE AND DISTRICT V.M.A.*

PRESIDENT'S ADDRESS AT PETERBOROUGH MEETING

A meeting of the Lincolnshire and District Veterinary Medical Association was held at the Angel Hotel, Peterborough, on Thursday, June 11th, 1936.

The President, Mr. R. Swaby, presided over the following members: Messrs. Porter-Smith, Dickinson, Poles, Eaton, Walpole, Knowles, Lang, F. L. Gooch, F. W. L. Gooch, Williams, Hill, R. Hudson and Lockwood, and Major Foster. The following visitors were also present: Major T. Dalling, Beckenham; Lieut.-Colonel H. Greenfield, Camberley; Messrs. R. W. A. Watchorn, Cambridge; John S. S. Woodrow, Goole; J. D. Broome, Peterborough; and Poles, Jun., Whittlesea.

Apologies for absence were received from Sir John M'Fadyean, Professor Macqueen, Sir Frederick Hobday, and Messrs. Little, Brook, W. Gibson, Standley, Runciman and Bindloss.

It was agreed that the minutes be taken as read.

Subscription Arrears.—The Secretary and Treasurer (Mr. F. L. Gooch) again brought up the question of arrears of subscriptions. A year ago, he said, they had amounted to £35; that figure had now been reduced to £11 0s. 6d., due up to February, 1936. Of that total, £8 was owed by three members.

On the proposition of Mr. Poles, seconded by Mr. Walpole, it was agreed that a final letter be sent to the members concerned, and that if they still failed to pay, they should cease to be members (Rule 7).

New Member.—Mr. Porter-Smith proposed, and Mr. G. Eaton seconded that Mr. MacFarlane (Spalding) be elected as a member of the Association. This was unanimously carried.

Council, N.V.M.A.—It was proposed by Mr. F. L. Gooch, seconded by Mr. Porter-Smith and agreed, that the President and the new Secretary (Mr. W. Gibson) be elected to serve on the Council of the National Association.

The "Mutual Defence Society."—Mr. F. L. Gooch read a letter from the Veterinary Benevolent and Mutual Defence Society of Manchester, stating that a member of the society had offered a donation of £50, provided that 50 new members could be obtained during the year, and asking for support. Mr. Gooch pointed out that it was not only a benevolent but a defence society, as it offered free legal assistance to any member who was so unfortunate as to

*Received for publication June 15th.

become involved in litigation with a client. He mentioned a case where the Association had fought the case of one of the members of that Division which cost a considerable sum of money to defend and the case was won.

It was decided to take no action with regard to an invitation to send a delegate to the National Association for the Prevention of Tuberculosis, to be held in July.

President's Inaugural Address

This closed the routine business, and the President's Inaugural Address followed: Mr. Swaby said:—

First of all I must thank you for the honour you have conferred upon me in electing me to the Presidential chair of this Division for the ensuing year. In accepting this office, I am deeply sensible of the responsibilities that go with it and also of my own shortcomings to fill it with the ability and dignity that its traditions deserve—the more especially when one recalls the illustrious men who have preceded me, many of them with a great wealth of years and experience, to neither of which I can lay any claim.

We live in a progressive age and must keep abreast of the times—nothing can help us to attain that object more than attendance at such meetings as this of our own Association, and that of our parent body the "National." Ours is a small profession and because of that we cannot afford division in its ranks; it needs the support of all its members by which those of our members who spare neither time, energy, nor expense in furthering our interests on the councils of the R.C.V.S. and N.V.M.A. will be encouraged to continue and feel that at last they are laying that bogy "apathy" of which our members have so long been accused. Ever since I became a member of this Association I have often noted with regret the meagre attendance at our meetings. I am well aware of our geographical situation and that our members are widely scattered—yet why is it we still get "the few faithful enthusiasts," who continue regular attendance, no matter what the distance or place of meeting? On looking through the lists of members, I find we have approximately 50 members, yet how often do we get a quarter of that number at our meetings? Likewise with the annual Congress, N.V.M.A., I have noticed that there are very few members of this Division who attend regularly. I can assure those who do not that they cannot realise what they are missing, both socially and intellectually. In order that you shall not think it easier for me to preach than to practise I may say that during the eleven short years I have been in practice, I have attended nine "National" Congresses, and hope to continue to do so—the harvest I have reaped from such experiences has repaid me many times over for the effort made to attend. I will therefore ask that you turn up whenever you possibly can; these meetings rekindle our enthusiasm and improve our knowledge and interest. I am only too familiar with the difficulties of leaving a single-handed practice, the vagaries of which have a way of upsetting the "best laid schemes."

As a general practitioner I am still optimistic about our future welfare—there will always be room for the willing and efficient worker. Our colleges are full of students in spite of the institution of the five years' course, and the student of to-day is wonderfully well catered for and his choice of work in the profession more varied than formerly with county, municipal, research and academic posts to be filled. But, to my mind—being a yeoman bred and born—it would be a grave mistake if ever this country is deprived of the services of the general practitioner—about which you have heard so much in our Veterinary Press, etc., that I will not dilate further upon it, except to say that I think the "Society of Veterinary Practitioners" formed within the "National" is worthy of all our support, for the way it is working to safeguard our interests. I have purposely omitted to discourse on the very controversial subject of "whole-time versus part-time" inspectorates—as fortunately for us in this part of the county this work is still with us thus far.

One thing I would like to see receive the attention I believe it deserves would be the restriction of the sale of biological products to qualified persons, as the wholesale distribution through chemists to the man in the street is, in my view, becoming a very serious menace in some districts—and the firms who sell only through qualified people deserve our support. I would here say a word of thanks to those of our own members who, having patented some of our most useful instruments, in later years, have restricted their sale to qualified persons.

I feel I have omitted much from this address as I think the paper about to be discussed to be of much greater importance; thus I will conclude by expressing the hope that with your continued loyalty and support, we may have a successful and interesting year.

The hearty thanks of the members were accorded the President for his address on the proposition of Major Foster, seconded by Mr. Walpole. After making suitable response, the President welcomed the guests, making specific mention of Major Dalling and Lieut.-Colonel Greenfield.

Finance.—The balance sheet, which was then presented, showed £14 6s. 8d. in hand at the bank, with only the expenses of the present meeting to be met.

Paper.—Mr. Gooch proposed that as everyone

had received a copy of the paper Mr. Lang had prepared and it was therefore not necessary for it to be read, they should get straight on to the discussion. Mr. Lang concurring, this course was adopted. The paper was entitled "Common Salt and some Other Agents —Their Uses in some Conditions," and the discussion was opened by Major Dalling. [Mr. Lang's paper is reproduced, together with a report of the discussion, at the commencement of this issue.—*Editor.*]

On the motion of the President it was agreed that a letter of appreciation be sent by the Secretary to Major Dalling (who had had to return to London) for his kindness in finding time to be present.

Rules of the Division.—Mr. Gooch raised the question of the rules, which, he said, had been drawn up in 1900. That was the last occasion on which they had been printed, and most members had never had a copy. He believed this applied even to the President. There were no copies to give out to any new members. He felt that something should be done about their revision. It was agreed that it be left to Mr. Gooch to draw up suggested alterations to be submitted to the members.

Thanks to the President for so ably presiding over the meeting were expressed by Mr. Gooch, seconded by Mr. Porter-Smith.

The meeting then closed.

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VETERINARY MEDICAL ASSOCIATION OF IRELAND*

DEMONSTRATIONS AT DUBLIN MEETING

A general meeting of the Veterinary Medical Association of Ireland was held in the Veterinary College, Ballsbridge, Dublin, on Tuesday, May 5th, 1936.

The following members were present: Messrs. H. O'Leary (President), A. F. O'Dea, Jas. J. O'Brien, Prof. W. Kearney, A. A. Donnelly, N. H. Lambert, V. E. Stack, P. E. Mullaney, T. F. O'Brien, D. Reeves, M. J. Byrne, F. O'Leary, S. O'Donovan, T. A. Mernagh, J. F. Timoney, P. Harnett, S. Conway, Miss H. Bisset, P. F. Dolan, Prof. T. G. Browne, J. M. Crowe, J. J. Condon, T. O'Leary, W. J. Henigan, Prof. J. J. O'Connor, H. Dolan, J. S. MacCann, L. M. Magee, W. Joyce and J. M. Murphy.

Apologies for non-attendance were received from Messrs. J. Whitty and J. Dundon.

The proceedings commenced at 3 p.m. with some interesting demonstrations which were attended by a large number of veterinary surgeons.

*Received for publication, June 26th, 1936.

In brief, the demonstrations were as follows:

(1) Professor Browne: "Spinal (Epidural) Anaesthesia in the Horse."

(2) Professor Kearney: "The Routine Procedure for making a *post-mortem* Examination and for Collecting and Forwarding Specimens, including Examination for Anthrax."

(3) The President, Mr. H. O'Leary, gave an interesting demonstration on the use of X-ray apparatus.

(4) Prof. J. J. O'Connor, the Principal of the Veterinary College, carried out two surgical operations:

(*a*) On a horse with a sinus below the point of the hip;

(*b*) Tenotomy on a day-old foal with contraction of the flexor metatarsi.

In addition to carrying out these two operations, Prof. O'Connor brought forward an interesting case in a four-months-old bull calf. This calf was noticed to be straining very much and on rectal examination a large soft swelling could be felt on the floor of the pelvis. A very interesting discussion on this case took place amongst the members present.

(5) Mr. J. MacCann chloroformed a cow in the standing position, the dose being two ounces. He assured the meeting that general anaesthesia in a cow is a safe enough procedure if carefully carried out.

(6) Mr. Louis Magee exhibited a cow in which the right horn was five or six times the size of the left. The enlarged horn was very painful around the base and was fairly loose. In spite of being well fed the animal was not thriving. The case provoked a very interesting discussion as to the diagnosis of the condition.

. . . . .

After the demonstrations there was a short interval during which tea was served.

The members then re-assembled in the large Lecture Room.

Business

The Minutes of the previous meeting were read, confirmed and signed.

Correspondence.—(1) From Mr. O'Brien, M.R.C.V.S., Claremorris, asking that the matter of the grievances of the part-time Veterinary Officers be placed on the Agenda for this meeting.

(2) From Mr. S. R. J. Cussen, Cork, asking that the position of Local Authority Veterinary Inspectors who are acting in the capacity of Veterinary Examiners under the Fresh Meat Act be reviewed. It was decided to take no action in this matter for the present, as the meeting was informed that it is receiving the attention of the Government at the moment.

(3) From Mr. C. P. Hynes, Lismore, regarding the question of reviewing the grievances of part-time Veterinary Officers and stating that three

members from the Munster Veterinary Inspectors' and Practitioners' Association had been deputed to attend this general meeting. The meeting discussed the best means of having these grievances redressed and it was decided to appoint a special Committee of eight part-time Veterinary Inspectors (named below) with terms of reference (as set out beneath) to enquire into the disabilities under which part-time Veterinary Officers of Local Authorities labour and to report their findings to the general meeting of this Association to be held in August. This Committee is to work in collaboration with the Council of the Veterinary Medical Association of Ireland.

Committee: Two representatives of the Munster Veterinary Officers Association; Messrs. J. J. O'Brien, Claremorris; T. Treacy, Nenagh; T. A. Mernagh, Gorey; T. O'Leary, Macroom; J. M. Crowe, Edenderry, and J. J. Lyons, Abbeylands.

Terms of reference to include:

(*a*) Remuneration for duties under (1) Diseases of Animals Acts; (2) Tuberculosis Order; (3) Milk and Meat Inspection.

(*b*) Granting of annual leave on full pay with payment of *locum tenens*.

(*c*) Payment during sick leave and payment of substitute.

(*d*) Desirability of seeking pension rights.

Report of Council

A short résumé of the two Council meetings which took place since the annual general meeting was read to the meeting. The report is as follows:

Two Council meetings have been held since the Annual General Meeting on January 31st.

First Meeting: At the first of these, held on Friday, February 28th, replies were read from the Ministers concerned regarding the three resolutions passed at the Annual General Meeting.

A letter was read from the veterinary surgeon at Harolds Cross Greyhound Racing Track asking the Association again to take up the question of the fees with the management. It was decided that this should be done.

Charity Meeting at Shelbourne Park.—A letter was read from the managing director at Shelbourne Park granting the Association the first charity meeting at the end of the season and intimating that it was unusual to take prize money out of gate receipts. A discussion took place regarding the prize money and as several members of the Association had previously been asked for their opinion on the matter and as it was made known at the meeting that those members asked were willing to subscribe, it was decided to write to the managing director at Shelbourne Park offering him our best thanks and telling him that the Association were in a position to put up the prize money.

Honorary Associates' Certificates.—Professor Craig and Sir John Moore having intimated their willingness to be made Hon. Associates, the necessary certificates were signed.

Programme for the year was also provisionally fixed and it was decided to hold the Provincial Meeting this year at Drogheda.

Second Meeting: The second Council meeting was held at the Veterinary College on April 1st, 1936.

A reply was read from the Secretary to the Minister for Education stating that the question of the supply of tubercle-free milk to schools and colleges is a matter, in the first instance, for the managers of these institutions. It was decided to take the matter up again with the Minister when some particulars as to grants to the various schools and colleges from the Ministry had been obtained.

Arrangements were made for the dinner and presentation to Professor J. J. O'Connor, M.R.C.V.S.

The question of salary offered for post of Pathologist (male) for Poultry Diseases, *viz.*, £300-£15-£500 plus cost of living bonus, was considered. The Council took into consideration: (1) that a man with considerable experience in poultry disease work is required; (2) the enormous value of the poultry industry in the Saorstat; (3) the large amount of work to be done by the selected candidate and his grave responsibilities. They decided that the salary offered is totally inadequate as this is a specialised post. They further decided to circularise the profession in the Irish Free State requesting members not to apply for this post at the salary offered; also to write to the Minister for Agriculture in the matter, pointing out that the salary offered was considered totally inadequate for such a specialised post and telling him that they were notifying the profession accordingly.

Prize Money for Shelbourne Park Meeting in aid of the Veterinary Benevolent Fund. It was decided to bring the question of raising this money before the General Meeting to be held in May.

Warble Fly Order.—Mr. S. Conway, Wicklow, raised the question of supervision of inspectors appointed under the order. It was decided to write to the Minister in the matter.

Charity Meeting.—Concerning the question of raising prize money for the Greyhound Charity meeting at Shelbourne Park, it was decided that there be a minimum subscription of 10s. and that the profession be roughly divided into groups and collectors appointed amongst these groups in order to raise this prize money.

The groupings are as follows:

Group No. 1: Dublin Corporation and Veterinary College staff—Mr. Denis Reeves appointed collector.

Groups No. 2 and 3: Department of Agriculture staff—Mr. Mullaney appointed collector.

Group No. 4: Limerick and Cork Corporation staff—Mr. Dundon appointed collector.

Group No. 5: Veterinary Examiners (other than those in Dublin, Cork and Limerick)—Mr. P. J. O'Donoghue appointed collector.

Group No. 6: Practitioners—One practitioner in each County to be asked to collect.

Other Business.—It was decided that a gratuity of 10s. be given to each member of the Veterinary College subordinate staff (five) for services rendered in connection with the demonstrations at the College.

Resolutions of condolence were passed to the relatives of the late Col. Ryan and Mr. W. W. Malone, M.R.C.V.S., all members standing.

New Members.—Three new members were unanimously elected, *viz.*, Mr. F. Staples, Wexford (proposer: Mr. J. M. Murphy; seconder: Mr. H. O'Leary); Mr. G. Morrin, Baltinglass (proposer: Mr. S. Conway; seconder: Mr. J. M. Murphy); Mr. M. G. Hynes, Dept. of Agriculture (proposer: Mr. J. Whitty; seconder: Mr. M. McClancy).

Trustee.—Mr. H. O'Leary was unanimously appointed a trustee to the Association in lieu of Mr. James Doyle, recently deceased.

Paper.—Mr. T. Treacy, Nenagh, read a very interesting paper on "The Outlook of the Veterinarian."

The paper provoked a very lively discussion and much mention was made of the hardships under which part-time Veterinary Inspectors labour.

Demonstrations

(1) Procedure in Conducting Post-Mortem Examination

Professor Kearney demonstrated the procedure of *post-mortem* examination and pointed out the necessity for careful observation and accurate recording of abnormal changes, since it might happen that such evidence might at a future date be required by a Court of Justice. In such an event only the written observations made at the time of the examination would be admitted as evidence. Furthermore, there was always the possibility of a second opinion being sought and undesirable clashing of evidence by professional witnesses might be avoided by careful observation. He emphasised the importance of a complete autopsy, despite an apparent cause of death being revealed early at the examination. It sometimes happened that an animal might have died from, or be affected with, more than one complaint. To be thorough, the examination must be systematically conducted. Haphazard examination might cause obscurity and wrong deductions. Professor Kearney indicated the method he had found most suitable and also demonstrated how material should be collected for bacteriological and chemical examination.

(2) The Uses and Advantages of Veterinary Radiography

A very interesting demonstration on the above subject was given by Mr. H. O'Leary of Dublin. He apologised to those present for the fact that he was unable to go into detail owing to the small amount of time at his disposal. Mr. O'Leary explained, however, that the X-ray apparatus which he possessed was a portable one and could be used and taken with ease to any part of the country where electricity was installed. He also possessed fittings to change direct current to alternating current and also to bring up to the required strength the voltage of private plants. The demonstrator then pointed out its uses in the diagnosis of such conditions in the horse as fractures and dislocations of the bones of the limbs, head and neck; foreign bodies, navicular disease, spavins, sidebones, splints, etc. Mr. O'Leary explained further that his apparatus was one of the most powerful made, but was not powerful enough to penetrate the trunk of the horse; it was, however, sufficiently strong to be used on any part of the largest dog or any animal of similar size.

In the dog its uses could be well imagined in such cases as the location of foreign bodies, especially in the alimentary tract; also the position of a dislocated joint and fracture, revealing how they should be manipulated into their proper positions. Mr. O'Leary then took two skiagraphs of a terrier with a fractured pelvis and an ankylosed hock of a foal; he also attempted to take a skiagraph of a horse's shoulder which was fractured a few days previously while competing in a race. The films were later developed at Mr. O'Leary's surgery by his assistant, but owing to the lateness of the hour those present had not an opportunity of seeing them. Mr. O'Leary then explained that he would be prepared to take skiagraphs for any member of the profession at a very reasonable charge.

(3) Spinal (Epidural) Anaesthesia in the Horse

In giving this demonstration Professor T. G. Browne pointed out that the general technique of this method of anaesthesia in the horse is very similar to that in the ox, the anatomical arrangement of the spinal cord and nerves in the sacral region being very much alike in these two animals.

"In phlegmatic animals," he proceeded, "no special methods of restraint may be necessary in making the injection, but in highly strung animals a preliminary narcotic, a local anaesthetic at the site of injection, the twitch or a side-line may be used singly or in combination. The site of injection is the first intercoccygeal space, which can be located by erecting the tail to its highest limit, as the result of which a depression occurs above the root of the tail between the spinous processes of the first and second coccygeal vertebrae. This depression can be made out by pressure with the point of the thumb or finger. It is opposite the caudal fold of skin which is formed at each side of the root of the tail when the tail is erect. Another method of locating this space is to take an imaginary line joining that prominence caused by the great trochanter of the femur with its fellow of the opposite side. This line passes over the sacro-coccygeal joint, behind which the spinous process of the first coccygeal vertebra

can be located, and immediately behind this process is the space sought for. It may be noted here that immediately in front of this process is a smaller depression, the sacro-coccygeal space, but it would be difficult to make the injection here on account of the small size of this space.

"The hair is clipped or shaved at the site and all aseptic precautions are taken in making the injection. The point of the needle is inserted at the posterior part of the first intercoccygeal space and the needle is directed downwards and forwards at an angle of about 30 degrees with the horizontal, making certain to maintain the direction of the needle perfectly in the median plane. Should the direction of the needle be allowed to deviate to one side or the other the point of the needle may fail to enter the vertebral canal. When the needle has entered the canal its point glides forward along the floor of the canal so that the needle can be inserted freely to its full length. If the needle be inserted in a more vertical direction than 30 degrees, as recommended by some authorities, its point will abut against the floor of the canal so that it is difficult to ascertain whether or not the canal has been entered. The needle must be inserted to a depth of about two inches in order to reach the canal. If the canal has been entered the injection can be made with very little force on the piston of the syringe whereas if the point of the needle be not in the canal considerable resistance will be offered to the piston. The needle should be about three inches long, being very similar to that which is used for this operation on the ox.

"One of several local anaesthetics may be employed but that used for this demonstration was a special preparation, 'Parsetic,' produced by Parke, Davis & Co., which is a solution containing 2·25 per cent. of ethocaine with adrenalin chloride. The quantity which should be injected will depend on the size of the animal and on whether or not it is desirable to maintain the animal standing. If the control of the hind limbs is to be maintained the dose of 'Parsetic' should vary from 12 c.c. for an animal of the polo-pony size, to 25 c.c. for a heavy draft animal. Should the animal be recumbent 50 c.c. to 60 c.c. may be injected. If the animal should fail to be able to stand as a result of the injection it should be then cast and maintained in the recumbent position until the effects of the anaesthetic have disappeared; otherwise the animal may injure itself from struggling in its attempts to get up while the hind limbs are paralysed. The effects of the anaesthetic are apparent within about 15 minutes after injection and these continue for about one hour; they then begin to pass off and they have usually disappeared at the end of the second hour."

The animal used for this demonstration was a mare of the cab-horse size. 12 c.c. "Parsetic" were injected. The tail became flaccid and the anus and vulva became relaxed within 15 minutes. A speculum was inserted into the vulva and the latter was dilated without the least evidence of straining on the part of the animal. The passage was illuminated by means of a flashlamp bulb fitted to the speculum and connected with a small battery, so that a good view of the vagina and os uteri was obtainable with marked facility.

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SOCIETY OF VETERINARY PRACTITIONERS

MEETINGS IN LONDON AND BIRMINGHAM

A meeting of the Society of Veterinary Practitioners was held at the Holborn Restaurant, Kingsway, London, W.C., on the afternoon of Saturday, May 2nd, when the chief business before the meeting was discussion of the subject of free treatment for the sick animals of poor persons.

There were present: Messrs. G. N. Bushman (Hornsey), T. A. R. Chipperfield (Cranleigh), R. Crawford (Colchester), Captain H. S. A. Dunn (Hove), Captain F. C. Gillard (Folkestone), Lt.-Col. H. Greenfield (Camberley), Dr. Tom Hare (St. Albans), Major Hamilton Kirk (Golder's Green), Mr. E. G. Lamb (Hitchin), Professor J. McCunn (London), Messrs. C. T. Murphy (Colchester), C. W. Perrin (Folkestone), D. T. Reid (Dorking), C. R. Wood (Wimbledon) and Captain T. L. Wright (Putney).

Major Hamilton Kirk was appointed to the chair.

The minutes of the last two meetings of the Society, having been published in *The Veterinary Record*, were taken as read and were signed as correct.

The Hon. Secretary announced the receipt of apologies for absence from the following members: Captain J. A. Craft (Cranleigh), Captain F. Crowhurst (Marden), Mr. J. B. Dier (East Grinstead), Major H. G. Lepper (Aylesbury), Captain J. F. Macdonald (Putney), Mr. E. Morgan (Faversham), Messrs. F. W. Willett (Staines) and R. A. Willett (Staines).

Nomination of Representatives to Council, N.V.M.A. — The following gentlemen were nominated for election (to take place at a future meeting) to represent the Society of Veterinary Practitioners on the Council of the N.V.M.A., it being understood that these nominations would be brought forward for consideration by the Council of the Society: Messrs. Donald Campbell (Rutherglen), J. B. Dier (East Grinstead), O. V. Gunning (Burton-on-Trent), H. W. Hall Masheter (Newnham-on-Severn), A. MacKenzie (Market Drayton), Professor W. C. Miller (London), and Mr. H. L. Roberts (Ipswich)

(present members of Council), together with the following: Messrs. F. Beckett (Blandford), W. P. Blount (Lewes), P. Crosfield (Chipping Norton), H. S. A. Dunn (Hove), Captain F. C. Gillard (Folkestone), Mr. S. F. J. Hodgman (Beckenham), Captain W. K. Townson (Peterborough) and Mr. A. Watson (Bradford).

In announcing that the names of these fifteen gentlemen would be forwarded to the Council of the Division for consideration, the HON. SECRETARY said that by virtue of the number of members possessed by the Division it was entitled to a representation of fourteen.

New Members.—On the proposition of Professor MCCUNN, seconded by Colonel GREENFIELD, the following were elected as members of the Society: Mr. G. N. Bushman, Captain F. C. Gillard, Dr. Tom Hare, Messrs. C. W. Perrin, C. R. Wood, R. Crawford, J. Anderson, C. S. Hunting, A. C. Shuttleworth, A. J. McCarmick, B. P. Boyle, F. Beckett, R. W. Glaister, J. C. Hamilton, W. B. Forrest, G. J. Furness, W. F. Loveless, F. B. Hardy, G. Mayall, H. J. Edwards, W. Gibson, G. N. Gould, C. Weighton, H. E. Powell, E. Marrison, A. Levie and P. M. Evershed.

The HON. SECRETARY announced, amid applause, that this brought the membership of the Society to a total of 430.

Correspondence.—The only items of correspondence, other than those intimating the willingness or otherwise of members to accept the invitation which had been extended to them to represent the Society on the Council of the N.V.M.A., if elected, had reference to the main business that was before the meeting, and were received from Mr. D. Coull, of Brentwood, and Mr. H. E. Smithers, of Edgware.

Discussion.—The discussion on free treatment for the sick animals of poor persons was now entered upon and participated in by the Chairman and the following members: Lieut.-Colonel Greenfield (who succeeded Major Kirk in the chair when the latter had to make an early departure), Capt. Gillard, Messrs. Dunn, Wright, Murphy, Hodgman and Chipperfield, Dr. McCunn, Dr. Hare and the Hon. Secretary (Mr. Steele-Bodger).

The following resolution was carried unanimously:

"That this Society asks the N.V.M.A. to request the Royal Veterinary College to consider the establishment of a scale of fees for all operations, in order that the College may not compete unfairly in this matter with general practitioners." Proposed by Mr. HODGMAN and seconded by Mr. CHIPPERFIELD.

It was agreed that the above resolution be referred to the Council of the Society for consideration.

A further resolution regarding R.S.P.C.A. schemes was proposed by Dr. MCCUNN, seconded by Captain GILLARD, and referred to the N.V.M.A. Council for action.

The HON. SECRETARY said that he had with him forms of a questionnaire regarding the working of the existing schemes for the treatment of the sick animals of poor persons which the N.V.M.A. were issuing to the Secretaries of all the Divisions.

It was agreed that the Hon. Secretary should, if required, secure further copies of the questionnaire for forwarding to the members of the Society who applied to him for it.

The meeting closed by the passing of a hearty vote of thanks to Major Kirk and Colonel Greenfield for their conduct in the chair.

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BIRMINGHAM MEETING

A meeting of the Society of Veterinary Practitioners was held at the Grand Hotel, Birmingham, on Wednesday, May 20th. The President (Mr. Donald Campbell) was in the chair and there were also present: Messrs. H. W. Dawes, W. W. Lang, H. Greenfield, G. S. Muir, S. Jennings, W. H. Stewart, H. Yeomans, A. H. Watson, O. V. Gunning, L. S. Balls, R. J. Stow, J. McCunn, J. T. Share-Jones, H. V. Hughes, H. Llewelyn Jones, T. Wilson, P. Abson, J. W. Pritchard, H. Scott Dunn, J. L. Cormack, A. Mackenzie, H. W. Griffiths, T. B. Yarrow, W. R. McKinna, E. P. Edwards (Hon. Treasurer) and H. W. Steele-Bodger (Hon. Secretary).

Council's Recommendations.—The Council of the Society met earlier to review the agenda, making two recommendations to the general meeting.

One was that the following be nominated to represent the Society on the Council of the N.V.M.A.: Messrs. D. Campbell, J. B. Dier, O. V. Gunning, W. C. Miller, W. P. Blount, T. A. R. Chipperfield, A. Mackenzie, H. S. Dunn, R. J. Stow, F. Beckett, A. Watson, P. Crosfield, S. F. Hodgman, F. C. Gillard and C. W. Elam, together with the Hon. Secretary *ex officio*. This recommendation was later accepted with unanimity.

The other recommendation related to the election of members of the Council of the R.C.V.S. Deeming it inadvisable to support individual candidates, it was proposed to issue a brief memorandum pointing out which of the candidates were members of this Society.

Royal Sanitary Institute Congress.—The question of sending a delegate to the Royal Sanitary Congress was raised, and an offer by Professor Share-Jones to represent the Society in that capacity was gratefully accepted.

New Members.—The following practitioners, nominated for membership of the Society, were duly elected: Messrs. S. H. Nixon (Sheffield), T. C. Fletcher (Sheffield), A. Dobie (Birkenhead), H. W. Griffiths (Moseley), H. Yeomans (Kidderminster), and Edmondson (Tutbury).

The Hon. Secretary mentioned that this brought the membership of the Society up to 441.

R.V.C. and Fees.—Two resolutions passed at a meeting of the Society held in London on May 2nd, came up for discussion. The first was as follows: "That this Society ask the N.V.M.A. to request the Royal Veterinary College to consider the establishment of a scale of fees for all operations, in order that the College may not compete unfairly in this matter with general practitioners."

The President said a very clear statement was made at the meeting in London by Professor McCunn, and he would ask that gentleman to speak to the matter.

Professor McCunn then opened a discussion on this subject and eventually, on the motion of Mr. H. W. Dawes, seconded by Mr. A. H. Wilson, it was unanimously agreed to endorse the resolution.

R.S.P.C.A. Free Treatment Schemes.—Consideration was now given to the second of the London resolutions.

The following members took part in the discussion on this resolution: The President, Lieut.-Colonel Greenfield, Capt. Gunning. Mr. Dawes, Dr. McCunn, Professor Share-Jones, Messrs. Watson, Griffiths, McKinna and the Hon. Secretary, while letters relative thereto were read from Messrs. C. W. Elam, G. Mayall and J. W. Procter.

At the termination of the discussion the President said: "May I put the resolution to the meeting, omitting the last sentence, which seems to imply a needless threat? We might add a request to the R.S.P.C.A. to assist us in getting more veterinary surgeons on the local committees."

The resolution, amended on the lines suggested by the President, was then carried, on the motion of Mr. Gunning, seconded by Mr. Edwards.

R.C.V.S. Election.—Mr. Hughes moved that the recommendation of the Council in reference to the election to the Council of the R.C.V.S. be accepted, namely, that a memorandum be issued indicating which of the candidates were members of this Society. The Council had discussed the matter at considerable length, and thought it would be better not to take any active part in the election. To champion the cause of any particular candidate or candidates might lead to friction.

Professor McCunn, in seconding, said that in committee he favoured attention being drawn to the record of certain candidates who, while not being members of this Society, desired their support for what they had done for the profession.

Professor Share-Jones thought the resolution was as far as they need go, and each candidate should stand or fall by the policy he had declared.

The resolution was carried unanimously.

The Hon. Secretaryship.—The concluding item on the agenda was to receive nominations for the honorary secretaryship of the Society.

The President said that, as this was a matter of considerable moment to the Society, he would like to impress upon them the fact that Mr. Steele-Bodger had instructed them that he could not possibly continue in the position after the close of the current year. Knowing the tremendous amount of work the post entailed, he could not bring himself to persuade Mr. Steele-Bodger to continue.

The Hon. Secretary having spoken to this matter, Mr. Llewellyn Jones said that when Mr. Steele-Bodger took over the secretaryship from him the work was very light. The Society was then in its infancy, and it had now grown to proportions which they hardly expected and was growing more every day. They could not expect a man to do this work as well as look after his practice. He thought the Society was now strong enough to pay a secretary, and he suggested that that be done.

Mr. Edwards (Treasurer) said he was afraid the Society could not afford this at present. He explained the financial position. The sum at present in hand was about £75, but it was only fair to say they had had an expensive year, with several big items of expenditure which were not likely to recur. They had also wiped off a deficit of £50.

The Hon. Secretary, in answer to a question, said he thought the membership could be increased to 800. With a subscription of 10s. a year it was easy to estimate the income.

Professor McCunn suggested that the Society should have a paid secretary and Mr. Steele-Bodger continue to act as honorary secretary.

Mr. Steele-Bodger: "I am afraid that would be impossible."

The President said they must devise some scheme whereby the work could be carried on. It was much too onerous for an honorary secretary who had a private practice.

Lieut.-Colonel Greenfield moved that a small committee be appointed to consider the matter, and that, as Mr. Steele-Bodger had built the Society up to its present strength, he should be asked to take charge of it.

Mr. Watson seconded.

Mr. Steele-Bodger said he was willing to serve on the committee, but he would not like to be in control.

Eventually the resolution was carried and the committee was appointed as follows: Mr. Steele-Bodger, Mr. H. W. Dawes, Professor McCunn, Professor Share-Jones and Mr. E. P. Edwards.

H. W. Steele-Bodger, *Hon. Secretary.*

ROYAL COLLEGE OF VETERINARY SURGEONS

Membership Examinations, July, 1936.

LIST OF SUCCESSFUL CANDIDATES

(*Continued from page* 868.)

Liverpool

FOUR YEARS' COURSE.

Class C

Dwerryhouse, H. S.
Lawton, F. P.
Ryan, J. F.
Stubbs, Miss P.
Taylor, Miss M. W. (P)

(P) Denotes credit in Pathology, Bacteriology and Protozoology.

Class D

Brock, Miss D. M.
Holroyd, H.
Massey, Miss K. M.
Wenner, Miss A. P.

FIVE YEARS' COURSE.

First Examination.

Davies, H. S.
Dinsdale, N.
Greer, F. G. (C)
Jones, H. E. W. (C)
Taylor, W. M.
Turnbull, P.
Warr, Miss M. H.

(C) Denotes credit in Chemistry.

Second Examination

Budden, L. J.
Dalby, Miss M. (A/H)
Hanbury, D. G. (P)
Harshaw, J. W.
Hodgkinson, E. J.
Firth, T. B.
McCay, Miss J. R.

(A/H) Denotes credit in Animal Husbandry.
(P) Denotes credit in Physiology (including Biochemistry).

Third Examination

Dransfield, J. W. (A)
Furber, T. R.
Hancock, J. L. (H)
Tutton, E. A.
Williams, R. E. (H)
Wood, R. B. (H)
Woods, Miss C. A.

(A) Denotes credit in Anatomy.
(H) Denotes credit in Veterinary Hygiene, etc.

Fourth Examination

Creasey, R. F. (P)
Jones, S. (P)
Richmond, P.
Shirley, G. N.

(P) Denotes credit in Parasitology.

Glasgow

FOUR YEARS' COURSE.

Class C

Duffy, T. P.
Gray, W. M.
Hall, R. B.
Scott, D. C.

Class D

Barr, J.
Geddes, J.
Semple, A.
Smellie, A.
Stewart, J. H.
Wardrop, W.
Williams, F. T.

FIVE YEARS' COURSE.

Third Examination.

Armour, R. F. (A) (H)
Mackinnon, W. (A)
McNulty, C. (A) (H)
Smith, R. G. (A)
Stewart, D. L. (A)
*Whiteford, W. A.
*Wilson, C. D.
Wilson, S. G.

* Denotes Second Class Honours.
(A) Denotes credit in Anatomy.
(H) Denotes credit in Veterinary Hygiene, etc.

Fourth Examination.

Birrell, J. (P)
Brown, H. M.
Campbell, D. S. (P)
Macaulay, D. J. (P)
McClelland, H. A. (P)
McFarlane, D.
O'Sullivan, J. G.
Pevie, W. G. G.

(P) Denotes credit in Parasitology.

In Parliament

The following questions and answers were recorded in the House of Commons during the past week:—

Imported Horses

Lieut.-Colonel Moore asked the Chancellor of the Exchequer whether he is aware that an application by the National Horse Association of Great Britain for the imposition of an import duty on certain categories of horses imported into this country has been before the Import Duties Advisory Committee since February; and whether he is satisfied that this committee has adequate staff at its disposal to enable it to deal with the applications made to it in a reasonably expeditious manner?

Mr. Chamberlain: I understand that the delay in the case referred to by my hon. and gallant Friend has been due to the desire on the part of the committee to obtain further information as to the views of those most concerned and that this has only recently reached them. I have no reason to suppose that the committee's staff is not adequate for the purposes they have to fufil.

Lieut.-Colonel Moore: Will my right hon. Friend, in view of the importance of this matter to the horse-breeding industry of this country, suggest to the board the desirability of trying to come to an early decision?

Mr. Chamberlain: The fact that it is so important makes it very necessary that full information should be in the hands of those who have to make recommendations, and now that they have got that information, I have no reason to suppose that there will be any further delay.

Spahlinger Vaccine

Mr. Haslam asked the Minister of Agriculture, whether the investigations of the Spahlinger vaccine have been commenced and are making progress; and whether he can make a statement on the matter?

Mr. Elliot: The question of conducting tests with the Spahlinger vaccine in this country is still under consideration. I am not yet in a position to make a statement on the matter.

Notes and News

The Editor will be glad to receive items of professional interest for inclusion in these columns.

Diary of Events

July 20th.—Meeting of the Editorial Committee, N.V.M.A., at 2, Verulam Buildings, Gray's Inn, W.C.1, 4 p.m.

July 24th.—Summer Meeting of the Royal Counties Division, N.V.M.A., at the Institute of Animal Pathology, Cambridge.

July 29th.—Meeting of the Derbyshire Division, N.V.M.A., at Derby, 2.30 p.m.

August 22nd.—Entries for Jubilee Memorial Bursary Examination.

Sept. 14th-18th.—N.V.M.A. Annual Congress, Scarborough.

Sept. 22nd, 23rd.—Jubilee Memorial Bursary Examination.

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PERSONAL

Presentations to the Two Scottish Principals

Tributes to Dr. Bradley and Dr. Whitehouse

To mark the attainment of his semi-jubilee as Principal, Dr. O. Charnock Bradley, of the Royal (Dick) Veterinary College, Edinburgh, was presented with his portrait in oils on July 8th. The presentation was made in the hall of the College by Sir Thomas Hudson Beare, chairman of the Board of Governors, in the presence of representatives from Edinburgh University, the Department of Agriculture for Scotland, and students of the College.

Making the presentation, Sir Thomas Hudson Beare said that Principal Bradley became a member of the College staff in 1900. By that time he had received the degrees of Bachelor of Medicine and Bachelor of Surgery from Edinburgh University. In 1905 he was awarded the degree of Doctor of Science by the University for his research on the development of the brain. He became Doctor of Medicine two years later.

In 1911 he was selected to take over the Principalship of the College—a better choice could not have been made. (Applause.) Simultaneously he was appointed an Edinburgh University lecturer in Comparative Anatomy.

Principal Bradley had done constant research work, and had written text-books which were recognised as standard works wherever English was spoken. He had been awarded the John Henry Steele Memorial Medal by the Royal College of Veterinary Surgeons, of which he became a Fellow last year.

Expansion of College

In his reply Principal Bradley said that in 25 years the College had expanded enormously. The number of students had increased from 70 or 80 to over 300, and the staff from 11 to 26. He could quite fairly say that the College had always led the van in many respects from its earliest years. He paid tribute to the College staff, past and present, for its loyal and enthusiastic support.

Principal Bradley's portrait was painted by Mr. Stanley Cursitor, R.S.A., on whose behalf a miniature of the original was also presented to the Principal.

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Dr. Arthur W. Whitehouse, Principal of Glasgow Veterinary College since 1922, was presented with gifts from the staff and past and present students at an informal gathering in the College, presided over by Mr. Alexander Murdoch, C.A., Chairman of Governors. Professor William Robb, who made the presentation, said that everyone knew the great value they placed upon their Principal and the immense amount of good he did for the College some years ago when income from Government sources dried up. The students, he said, looked upon Dr. Whitehouse in the light of a father. Not only did he devote great care and attention to them in the College but he continued to look after them once they had qualified. Professor Robb next handed over the gifts, which consisted of a gentleman's fitted wardrobe, a wallet and notes, and a silver tea service for Mrs. Whitehouse from the College staff and former students; and an easy chair and reading desk from the present students.

Dr. Whitehouse, in reply, said that the success of the College was in the first place due to the Governors. He had had the greatest support from the Chairman of the Board, from the late Professor Glaister and now from Mr. Murdoch. The members of his staff had always had a true love for their work and for the profession, but perhaps the main reason for success was the character of the young men and women in the West of Scotland who attended the College. He maintained that the material he and his staff had to work on was very much higher than anywhere else.

Professor J. G. Duncan proposed the vote of thanks to the Governors who had attended, and Colonel McGregor Robertson, Vice-Chairman, in reply, expressed the hope that Dr. Whitehouse would be long spared to be Principal. Without his guiding influence the institution would be at great disadvantage.

Mr. Murdoch said they would all be glad to know that the College was getting out of its darkness, and he hoped that very soon the Government would recognise the College by giving it a substantial grant. Although he had had no official intimation, he understood there was something on the move at the present moment towards that end. It was wrong to think that there was room for only one veterinary college. The fact that both the Glasgow and Edinburgh Colleges were full proved that.

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Appointment.—Mr. G. K. Fenn-Smith has been reappointed part-time Veterinary Officer to the Bournemouth Borough Council.

. . . . .

Sir Frederick Hobday Honoured.—Sir Frederick Hobday, Principal of the Royal Veterinary College, has been elected corresponding member of the Roumanian Academy of Medicine.

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R.C.V.S. OBITUARY

Borthwick, John Dowie, Onderstepoort, Pretoria. Graduated N. Ed. May 23rd, 1888. Died June 18th, 1936.

. . . . .

By the death of John Dowie Borthwick, at the Arcadia Nursing Home, Pretoria, on June 18th, 1936, the veterinary profession of South

Africa loses its oldest member. John Borthwick was born at Kirkliston, Scotland, on October 31st, 1867, and qualified as M.R.C.V.S. at the New Veterinary College, Edinburgh, in 1888. He went out to the Cape Colony early in February, 1889, and was the first assistant to the famous Duncan Hutcheon, Chief Veterinary Officer and later Director of Agriculture of the Cape Colony. In 1891 Dr. Alexander Edington was appointed Colonial Bacteriologist at Grahamstown and in order to assist him in his study of stock diseases, Borthwick was seconded for the purpose during the period 1891-93. He later served as Assistant Veterinary Surgeon (now Government Veterinary Officer) in different parts of the Cape Colony.

When Hutcheon became Director of Agriculture, Borthwick succeeded him (as from July 1st, 1906) as Chief Veterinary Officer and after the establishment of Union, he became the Assistant Principal Veterinary Officer with seniority from January 1st, 1912, and with headquarters at Pretoria. On Mr. Gray's retirement as Principal Veterinary Officer on May 10th, 1921, he took over the office and himself retired on March 31st, 1927, on pension.

John Borthwick then entered the service of the Imperial Cold Storage Company and in the course of his duties came into contact with the officials of the Transvaal Cold Storage Company and Rhodesian Export and Cold Storage Company, affiliated companies of the Imperial Cold Storage Company.

Through his early training he always took a keener interest in animal husbandry than in the purely veterinary aspect of the profession. Not only was he particularly keen on breeding problems, especially mules, but also in the meat trade. Since 1927, when he was appointed Veterinary Adviser to the Imperial Cold Storage, he had visited their ranches regularly, especially the Nuanetsi, and had interested himself in the transport of slaughter stock by rail.

To his wife, daughter and two sons we extend our heartfelt sympathy in the grievous loss they have sustained.

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Will.—Major David Tennant, Bell Farm, Windsor (who held the position of veterinary surgeon to the Sovereign at Windsor during four reigns), left £5,932 (net personalty £4,829).

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N.V.M.A. CONGRESS AT SCARBOROUGH

Reduced Fares

Vouchers enabling members to travel by rail to the Scarborough Congress at reduced rates are now obtainable from the General Secretary, N.V.M.A.

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INCREASE OF SWINE FEVER IN THE SOUTH

Owing to the increase of swine fever, the Cornwall Agricultural Committee has recommended the County Council to accept the Ministry of Agriculture's proposal that Cornwall should be scheduled under the Regulation of Movement of Swine Order, 1922.

In Wiltshire, too, an increase is reported, the number of suspected cases to date being 21 more than last year.

LEGAL NOTES

Condemned Meat.—"We find that necessary precautions have not been exercised regarding this food," said Mr. P. W. Lee, presiding magistrate, when Messrs. McCrackens, Limited, Maltravers Street, Sheffield, were find £30, at Sheffield Police Court, for being a company on whose premises certain meat intended for preparation and sale for the food of man was inspected and subsequently condemned by the justices.

The defendants pleaded not guilty.

Mr. J. W. Chant, prosecuting, said that the Chief Veterinary Officer visited defendants' premises on March 31st and saw a quantity of pigs' offal. Some of it was found to be affected with tuberculosis. This was seized and destroyed by order.

Mr. F. W. Scorah, for the defence, said that the offence was alleged to have been committed on March 31st, yet the firm was not brought to Court until July 9th. It could not be expected that with such a delay the firm could deal with a case of this kind adequately. On March 30th, he said, the inspector was told that a consignment of meat was expected the following day. An inspector was present when the consignment arrived, and he was able to examine it before anything was done to it.

He (the advocate) complained that the prosecution had not brought to the notice of the magistrates the fact that there were cuts in the meat which indicated previous examination, and that it had come from a bacon factory under Government control.

It was never exposed for the food of man, and he could only have understood the case being brought if the meat had been exposed for sale in some shop or other, or had been dealt with without examination by inspectors.

. . . . . .

Dairy Farm Offence.—Livingstone Dawson, of Townend Dairy Farm, Stannington, was fined £5 at the Sheffield Police Court for not immediately cleansing a stall in which there had been a cow suffering from tuberculosis.

Mr. H. M. Salusbury, Chief Veterinary Officer, said he had handed to the defendant a notice demanding the cleansing of the stall, but when he called later it was apparent that it had not been cleansed.

Dawson declared that he had disinfected the stall two days after the cow was taken away.

. . . . . .

First Prosecutions Under Warble Fly Order.—Stevenage farmers were defendants in the first two cases brought in England under the Warble Fly (Dressing of Cattle) Order, 1936, at their Court of Petty Sessions.

The summonses against them were dismissed on the payment of 6s. costs each.

One defendant stated that he had used ordinary fly dressings and had squeezed out a small number of warbles.

The other farmer contended that he did not know it was compulsory to treat cattle for the warble fly.

. . . . . .

Failure to Report a Cow Suffering from Tuberculosis.—George William Walker, dairyman, late of Church Farm, Halsham, West Riding, was summoned for keeping a cow suffering or apparently suffering from tuberculosis, and failing to report it.

Mr. T. L. Witty, for Walker, pleaded guilty.

Superintendent Robson said Walker bought 33 head of cattle from a Mr. Lupton, of Ottley, on the hire purchase system.

On May 1st, as a result of removal from his farm, Walker found it necessary to take these animals to the Whitehouse Farm, Dunswell, where they were put to graze.

The owner of the farm, Leonard Smith, noticed that one cow looked ill and emaciated. It developed a cough which indicated tuberculosis.

Mr. Lupton, the man who sold Walker the cattle, had a look at the cow, and decided in his own and Walker's interests to inform the authorities.

Inspector Howarth, of the R.S.P.C.A., a veterinary surgeon, said that in his opinion the cow was suffering from primary tuberculosis. Mr. Lupton reported this to P.-c. Smith, of Dunswell.

Mr. Hicks, the county veterinary surgeon, conducted a *post-mortem* on the cow, and pronounced it to be in the final stages of tuberculosis.

P.-c. Smith saw Walker, who admitted being the owner. He said the cow had knocked one of her hips and he had reported it to Inspector Howarth.

Mr. J. H. Fisher, imposing a fine of £5 and costs, said: "The Bench have come to the conclusion that this is a very serious case, because the fact that the man threw the milk away is strong evidence that he knew the cow was suffering from something dangerous."

* * * * *

VICTORIA VETERINARY BENEVOLENT FUND

The Secretary begs to acknowledge receipt of further donations amounting to £5 4s. 6d. in memory of Professor Macqueen from the following:—

Dr. G. W. Clough	G. A. Tomlin
Warwick Fowle	Prof. G. H. Wooldridge
Dr. G. D. Lander	

Total received, £15 7s. 6d.

* * * * *

ACUTE TOXAEMIA OF BURNS

In a recent issue of *The Lancet*, W. C. Wilson, G. D. Rowley and N. A. Gray, recorded what they consider a therapeutic measure of considerable promise for the treatment of one of the very dangerous early stages in the course of an extensive burn.

Acute toxaemia, though only an occasional occurrence under present-day treatment of burns by tannic acid, is still an important cause of death after extensive superficial burns and particularly in injuries affecting young children, in whom the clinical picture is characteristic and the illness often fulminating. The principles of treatment for most cases in the series studied were immediate coagulation of the burned area by a strong solution of tannic acid and, when necessary, maintenance of a normal blood-pressure level by intravenous infusion of gum saline. The authors' experience of treatment, however, includes not only various modifications of the tannic acid method but also other forms of local application; in general measures it embraces continuous as well as repeated intravenous infusions of normal saline, gum and dextrose saline, and also intravenous alkali. The point they wish to emphasise is that up to the present time, if acute toxaemia has developed in a severe or fulminating form, it has invariably proved fatal.

In three cases reported upon acute toxaemia of burns had developed in a very severe form, with typical features of vomiting, rise of temperature and pulse-rate, and mental changes such as anxiety, delirium, apathy or stupor, and, in fact, a fatal issue within a short time could have been predicted in two of them with almost complete certainty. Eucortone, an extract of suprarenal cortex, was used as an adjuvant measure in the treatment of these cases, and as the authors have never seen recovery under any methods previously employed they confidently attribute recovery to this, though, as the report is based on three cases only, they make no claim to an established advance in treatment.

* * * * *

BACTERIAL EVOLUTION

Under the above heading, *The Lancet* (June 20th) published the following leading article:

"Relationships, more or less remote, between various species of bacteria have long been recognised, and schemes of classification have been introduced which seek to indicate something more than degrees of similarity or dissimilarity. The analysis of structure offers a very elementary separation of bacterial types; physiological characters, determined with varying degrees of crudity, have been the guides to the nicer differentiation of species. Mr. Knight, in a monograph on Bacterial Nutrition,[1] has made an extensive survey of the more exactly determined physiology of bacteria, and has tried to coördinate his observations by the help of an evolutionary scheme for the schizomycetes. The first part of his report surveys the facts; the second is devoted to coördination of observation; and the third to the mechanism of nutritional variation.

"Bacteria may be arranged in a scale of increasing complexity of nutritional requirements. At one end are organisms with a wide range of synthetic ability, capable of obtaining energy and materials for the synthesis of their protoplasm from the simplest chemical compounds; such are the photosynthetic bacteria, resembling the green plants in obtaining energy mainly from light, and certain chemosynthetic bacteria, whose production of energy depends entirely on the chemical reactions they initiate. Intermediate between these organisms, utilising inorganic matter, and the bacteria which derive energy by the breakdown of complex carbon compounds, are bacteria which absorb CO_2 or simple organic compounds for their carbon (oxidising hydrogen for the purpose), or utilise CO, CH_4, or similar hydrocarbon as a source both of carbon and of energy. Next in the scale of complexity come organisms like *Bacterium coli* and *Pseudomonas pyocyanea*, requiring complex carbon compounds as source of energy and carbon, but assimilating nitrogen as NH_3 for the synthesis of their protoplasm. *Bact. typhosum*, *dysenteriae* Shiga, *paratyphosum* A, and *Proteus vulgaris* occur as 'exacting strains,' requiring amino-acids for their nitrogen, from which 'non-exacting' strains, utilising NH_3, can be derived. They form a link between types like *Bact. coli* and those (such as the acid-fast bacilli and the diphtheria bacillus) which cannot grow unless amino-acids are present as a nitrogen source. Even among the members of a single group, however, there are differences of nutritional requirements. The acid-fast bacilli, for example, are capable of arrangement in a special series which corresponds, as in the main series, to a progres-

[1] Bacterial Nutrition. Material for a Comparative Physiology of Bacteria. By B. C. J. G. Knight, M.Sc. Med. Research Council, Spec. Rep. Ser. No. 210. London: H.M. Stationery Office. 1936. Pp. 182. 3s.

sive restriction in utilisable sources of energy and food—*viz.*, the saprophytic acid-fast bacilli which are least fastidious, the cold-blooded, avian, and finally the human types of tubercle bacillus. Johne's bacillus is the most fastidious, being apparently unable to synthesise a substance, essential for its growth, that is readily supplied by the Timothy grass bacillus and the human tubercle bacillus. The increasing complexity of nutritional requirements is associated with decreasing synthetic powers, which include the capacity to synthesise essential growth substances. These substances are analogous to the vitamins of animal metabolism. They have been prepared as potent concentrates by Mr. Knight and his associates, and found essential for the growth of certain bacteria. They include (*a*) the 'sporogenes' factor, synthesised, for example, by *Bact. aertrycke* and *Aspergillus versicolor*, found in yeasts and mammalian urine, and required already formed for the growth of *Clostridium sporogenes, botulinum,* and *welchii;* and (*b*) the 'staphylococcus' factor, synthesised, for example, by *Pseudomonas pyocyanea* and *Vibrio cholerae,* and essential for the growth of staphylococci and *Bacillus anthracis.* At the upper end of the scale are organisms not yet grown in synthetic media of known composition, whose special requirements are supplied by chemically indeterminate mixtures like enriched nutrient broth. The group includes the influenza bacillus with its peculiar requirements of X and V factors, the brucella organism, the streptococci, pneumococci, the meningococcus, and the gonococcus.[2]

"The series arrived at by arranging the bacterial species as briefly described is claimed to be more than a merely static classification, similar to those put forward by Fischer and Orla-Jensen; it represents an evolutionary series. Mr. Knight bases his arguments on the following facts. In the course of world evolution, the simpler carbon and nitrogen compounds presumably developed first; and the bacteria that first arose would presumably be those capable of utilising NH_3 and CO_2. This explanation is too teleological to be readily acceptable, for it assumes that the most likely form of life was that best suited to *generally* prevailing conditions; whereas the origin of a 'living' chemical process, or the development of a more complex one, seems equally likely to have been the result of a peculiar, not a general, set of conditions, which could as readily give rise to protoplasm of limited synthetic abilities as one of wide. The evolutionary process may thus have been not a restriction of simple synthetic powers, but the acquisition of wider ones. But postulating organisms like the present-day CO_2- and NH_3-utilising forms as the primitive type, the series following them is linked dynamically by the occurrence of strains of the same species at different nutritional levels; by the experimental adaptation of strains to different nutritional requirements; and by the poor synthetic ability[2] of the predominantly and exclusively parasitic forms. If parasitism is regarded as a late adaptation in evolution, the characters of parasites are presumably late adaptations; and it is unlikely, as Mr. Knight says, that the majority of pathogenic bacteria appear by chance in the class of organisms whose nutrient requirements are not satisfied by simple synthetic media. In the course of his survey a correlation does in fact appear between pathogenicity and differences of nutrition. Even bacteria like *Bact. typhosum*, that can be trained to utilise simple compounds, are more fastidious when first isolated from the body of a host.

"The most persuasive evidence lies in the varying requirements of strains of the same species, and the demonstration that bacteria can apparently produce new enzymic systems to cope with new substrates. But this flexibility is confined to comparatively small portions of the immense scale of nutritional evolution that Mr. Knight sketches. There is, however, no evidence for postulating a more complex evolutionary series, though it is improbable that this progressive loss of wide synthetic ability, together with the late acquisition of special abilities, such as the synthesis of lysins and toxins, is necessarily a true picture of an evolutionary tree; there may be regressions and wide digressions with reentrant paths that complicate the main series beyond recognition. But the simplified picture forms a valuable groundwork upon which to build a bacterial classification; for, by the very nature of the criteria upon which carefully investigated strains are admitted to it, it remains flexible and empirical, yet with an empiricism that rests on a reasonable, though limited hypothesis. In reaching his conclusions Mr. Knight provides critical reviews of the gaseous requirements of bacteria and of the various methods of study of bacterial metabolism (especially the preparation of synthetic media), the differentiation of essential food substances from accessory food substances, and the technique of 'training' bacteria to grow in simple media. Hence there is much in his report which will interest the general bacteriologist, though the scheme for the practical use of the evolutionary classification that is put forward is at present applicable only in laboratories devoted to the kind of work that the author has both reviewed and furthered."

[2]In addition, analogous evolutionary series can be formed for certain protozoa, supported in this group of organisms by correlated changes in anatomical structure.

Correspondence

Letters to the Editor should reach the Office not later than by the first post on Tuesday morning for insertion in following Saturday's issue.

All correspondence must bear the name and address of the contributor for publication.

The views expressed in letters addressed to the Editor represent the personal view of the writer only and must not be taken as expressing the opinion or having received the approval of the N.V.M.A.

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RETENTION OF THE AFTERBIRTH IN THE MARE

To the Editor of The Veterinary Record

Sir,—As I see no note from the Editor that this correspondence must cease, I am replying to Mr. Margarson's letter appearing in your issue of July 11th, 1936.

As to the friable membrane which I say will not stand twisting, Mr. Margarson says such cases do not occur and this in the face of clinically direct evidence. So I will leave it at that.

I should be very sorry to feel that I had described a method for the benefit of our younger members, which Mr. Margarson from his "unfortunate experience," describes as "highly dangerous," but I really have no qualms on that account, as I have practised this method on an average of ten to twenty cases a season for over 40 years with complete satisfaction to myself and the owners.

The last paragraph in his letter amuses me because it is so dogmatic.

He apparently does not appreciate the value of the two-way catheter for the removal of decomposing placental shreds from the uterus of the cow, which he could not scoop out with his cupped hand.

Yours truly,

T. G. Heatley.

Woodbridge, Suffolk.

July 12th, 1936.

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"SOUND IN WIND AND EYES— A GOOD HUNTER."

To the Editor of The Veterinary Record

Sir,—It is the custom of many hunting people to replace horses during the summer. Such horses are bought at auction or in dealers' yards. At this season some horses are bought off grass, are immediately turned out and not brought in for conditioning until August or September and frequently do no serious work until late October or November. Such horses are usually examined by a veterinary surgeon on behalf of the vendor and in many cases the certificate states the animal to be "Sound in Wind and Eyes." Each hunting season I am called to attend hunters bought on such a certificate which upon being put into hard work are found to be unfit for hunting in that they are unable to maintain any sustained effort. Upon examination the lungs and larynx are found to be normal but heart disease of varying degrees is found to be present, the heart disease not being simple dilatation following sudden strain upon an organ not properly attuned, but disease of quite long standing. Upon discussing the condition with the owners I found in all cases that their interpretation of the certificate "Sound in Wind and Eyes" implied a healthy heart as well, as they said that no horse with a diseased heart could gallop. The vendors, however, invariably refuted this statement saying that the warranty "Sound in Wind" referred only to the lungs and/or larynx.

It is my contention, therefore, that the certificate "Sound in Wind and Eyes" is misleading and I personally refuse to give such a certificate unless I am assured by my examination that the heart is healthy. I feel that this is only fair to the general public. Horses bought at auction have to be returned within a few days if not up to warranty and as such horses as those referred to above are not put in use for a considerable period the defect is not discovered until too late for return. I say nothing about the warranty "good hunter" as this is not within the veterinary surgeon's province, although the fact remains that a good hunter must be "Sound in Wind and Eyes."

In conclusion, it is my opinion that a horse should not be warranted a good hunter or certified "Sound in Wind" if the heart is abnormal.

Perhaps other members of the profession engaged in horse practice will let us have their opinion.

Yours faithfully,

J. Cochrane-Dyet.

Craven Lodge,
Melton Mowbray.

July 13th, 1936.

The Editor acknowledges, with thanks, the receipt of the following:—

Communications from Messrs. E. J. Burndred, A. Dobie, R. G. Linton, R. Lovell, C. Machattie, W. C. Miller, J. W. Rainey, J. Smith and P. Vincent.

Report of the Sussex Veterinary Society from Dr. L. Jordan, Hon. Secretary.

Diseases of Animals Acts

SUMMARY OF RETURNS

Period.	Anthrax.		Foot-and-Mouth Disease.		Parasitic§ Mange.		Sheep Scab.	Swine Fever.	
	Outbreaks confirmed.	Animals attacked.	Outbreaks confirmed.	Animals slaughtered as diseased or exposed to infection.	Outbreaks reported by the Local Authorities.	Animals attacked.	Outbreaks confirmed.	Outbreaks confirmed.	Swine slaughtered.
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Period 16th to 30th June, 1936	5	5	—	—	1	2	7	82	30
Corresponding period in									
1935	9	16	2	97	3	10	5	112	88
1934	8	11	—	—	1	4	6	80	59
1933	4	4	—	—	3	3	6	84	56
Total 1st January to 30th June, 1936	258	303	4	379	70	207	144	1,071	715
Corresponding period in									
1935	209	240	34	10,208	70	154	191	973	510
1934	215	230	2	93	86	141	338	824	500
1933	161	181	56	5,350	97	172	205	832	483

Note.—The figures for the current year are approximate only.

§ Excluding outbreaks in Army Horses.